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## ORGANIZATIONAL STRUCTURE AND EMPLOYE MORALE\*

JAMES C. WORTHY  
*Sears, Roebuck and Co.*

### I. INTRODUCTION

THIS discussion will review some of the findings of the research conducted by Sears, Roebuck and Co. in the field of employe attitudes and morale. This research is an integral part of our company's personnel program; its primary purpose is to assist executives in their efforts to maintain sound and mutually satisfactory employe relationships. Such relationships are conceived by our management not only as a positive good in themselves but as an essential condition for the continued economic success of the enterprise.

We have had 12 years of experience in the formal study of employe morale. During that period our surveys have covered over 100,000 employees, working in several hundred different company units both in Sears, Roebuck proper and in a number of other organizations as well. Types of employees covered include sales and clerical personnel, manual and professional workers, supervisory employees, and executives. The size of units surveyed has ranged from fewer than 25 employees to more than 10,000. Many different types of units have been surveyed, including retail stores, mail order plants, factories, warehouses, and offices. The geographical distribution of employees covered

would correspond rather well with the geographical distribution of the U.S. population. By the same token, the communities in which units surveyed have been located cover practically the full range of sociological and cultural categories to be found in this country, except the small town and the rural.

### 2. METHODS OF STUDY

Time does not permit any detailed account of our survey methods; however, some brief explanation is necessary if only to indicate the extent to which confidence can be reposed in our findings.

Our original surveys were based solely on questionnaires, which were answered anonymously by employees. The questions covered a great variety of subjects—practically every subject, in fact, which we thought likely to have any influence on employe attitudes. In other words, the questionnaires had the simple, straightforward purpose of finding out how well employees liked their jobs, what their attitudes were toward supervision and management, and what factors in their employment situation might be contributing to dissatisfaction or poor working relationships. We assumed that when we had learned these things we would be able to take specific action to correct specific problems and thus restore peace and harmony where any lack thereof was found to exist.

We did find certain things that were sus-

\*Paper read at the annual meeting of the American Sociological Society held in New York, December 28-30, 1949.

ceptible of direct management action, but we also found many things that were difficult to take hold of. It soon became apparent that we were dealing with an infinitely complex system of influences and relationships, and not with a simple system of logical cause and effect. We began to question the adequacy of questionnaires and found, as we analyzed thousands of employee responses, that we could not even be sure we were asking the right questions or asking them in the right way.

Finally, there were real difficulties in attempting to analyze the significance of questionnaire responses. What was a "good" score on a certain point? Was a 65% "favorable" response to a question about employee discount policy equivalent to a 65% "favorable" response to a question about wage rates? Beyond certain relatively superficial points, there was often great uncertainty as to just what the tabulation of responses meant and what, if anything, could or should be done about it.

We have handled this problem by developing quite a different type of questionnaire and by supplementing it with other techniques (notably interviewing). Instead of covering a great many specific points, the questionnaire we now use seeks only to determine the general "feeling tone" of employees with respect to six key aspects of their working environment: (1) the company in general, (2) the local organization, (3) the local management, (4) immediate supervision, (5) fellow employees, and (6) job and working conditions. Ten items are included under each of these headings on which employees can express varying degrees of satisfaction or dissatisfaction. In scoring, we are not concerned with responses to each particular item in the questionnaire, but rather with the *general tendency* of responses in each of the six areas. In this respect, the questionnaire is patterned after the familiar "interest" or "personality" schedules used in psychological testing. As with such schedules, our questionnaire results can be expressed in "profiles." Furthermore, we have enough "cases" (i.e., units surveyed) to be able to translate raw scores into percentiles,

thus greatly facilitating the process of interpretation and comparative analysis. As our survey people gain more experience in relating different types of profiles to concrete situations, they are developing real skill in using questionnaire results as a diagnostic tool.

The function of the questionnaire is not, however, to secure detailed information, but rather to "take the temperature" of an organization and its various subdivisions, to determine whether the general level of morale is high or low, and to point out areas of stress and strain which may be tending to undermine cooperative working relationships. In other words, by means of the questionnaire, we are able to locate problem departments and to identify the general nature of employee dissatisfactions. Only within broad limits, however, does the questionnaire tell *why* morale may be low. The real task of determining the "why" falls to a team of carefully trained interviewers. Because the questionnaire has already indicated the general nature and location of problems, the interviewing team is able to concentrate its time and energies on those departments and employee groups most requiring attention.

Surveys are conducted by members of the company's regional personnel staffs, with technical direction and coordination from the national personnel office in Chicago. (Administrative control of survey activities is strictly a regional responsibility.) People conducting the surveys receive special training in non-directive interviewing and in certain aspects of sociological and anthropological theory which we have found to contribute meaningfully to understanding the problems of organizations. In large part, they are trained by the case method, not only through studying reports dealing with "classic" situations (of which by this time we have a fair variety) but also through participating directly in survey work under the tutelage of experienced survey personnel.

In this connection, it should be noted that the entire survey program makes extensive use of clinical methods, not only for training younger practitioners, but for analyzing the significance of survey results and for working

out necessary corrective measures with the executives responsible for the operating units involved. The participation of line executives, with their intimate and long-standing knowledge of their own organizations, in these "clinical sessions" has contributed greatly to both the pragmatic value of the survey program and the growth of knowledge and understanding on the part of survey personnel. Valuable as our extensive statistical data has been and is, most of the insights and hypotheses which the program has produced have been an outgrowth of this clinical approach.

Thus, the scope of our survey program has broadened significantly since its inception 12 years ago. We have found that there is more to good morale than high wages and pleasant working conditions (although these are of unquestioned importance). We have learned that effective leadership involves more than "winning friends and influencing people" (although social skill is an essential ingredient of executive capacity). It has gradually become clear that to understand what might be taking place within any particular working group we must have some knowledge of a variety of factors both internal and external to the group itself, and that, above all, we must have some dynamic conception of the manner in which these factors relate themselves one to the other and to the total situation of which each is an influencing and influenced part.

The scope of the surveys has thus been broadened to include the functioning of the organization as a whole and the entire pattern of technical processes and formal and informal relationships which comprise it. To the extent permitted by practical operating considerations, community and regional factors are likewise taken into account. In recognition of this broader scope, our surveys are no longer known as "morale surveys" but as "organization surveys." Determining the level of morale has ceased to be an end in itself and is now useful chiefly as a means for diagnosing the problems of an organization. Above all, our survey teams seek to deal not merely with the superficial manifestations of problems,

but with the basic influences which have created the problems.

Surveys are concerned not merely with discovering the nature and origin of difficulties; their primary purpose is problem-solving. To this end, the survey team attempts to give the local manager a more complete picture of his organization and the way it is functioning, and to help him understand the various factors operative in his particular situation and their effects, not only on the attitudes and behavior of his people, but on the efficiency with which his organization is functioning. With this clearer picture of his organization, the manager is in a better position to take constructive action directed at the root of his problem rather than its superficial symptoms. However, the long-range objective of the survey program is not so much to correct immediate situations as to assist in developing the kind of organizations that can solve their own problems. A survey has failed in this essential purpose unless it leaves the particular store, plant, or department stronger and more self-reliant than it was before.

Our survey program is thus primarily an administrative device: its chief function is to assist local executives in doing a better job of handling the problems of their organizations. However, the surveys have also provided highly useful information about certain fundamental problems of human relations. One of the responsibilities of the research and planning staff of the national personnel office is the constant analysis and evaluation of survey data and the development of working hypotheses based on these data. Time will not permit any general review of our findings to date, but I would like to indicate some of the general directions of our current thinking.

### 3. A PROBLEM OF INTEGRATION

One line of thought on which we are working is the possibility of developing a typology of the malfunctioning of organization which can be useful in studying social groups as the typologies used by psychiatrists are useful in studying the malfunctioning of personality. This possibility was first suggested by

the frequency with which the questionnaire "profiles" tended to form themselves into patterns with which we began to grow familiar. Our interviewing, likewise, attested that certain types of problems tended to occur in fairly well organized syndromes. For instance, we have found that certain kinds of difficulties typically follow changes in key management staff. We can usually predict not only what difficulties are likely to occur but the exact sequence in which they are likely to appear.

A typology of the malfunctioning of organization would be useful not only for scientific purposes but for administrative purposes as well, for with it could be developed a symptomatology by which problem situations could be diagnosed and acted upon more rapidly and more accurately. As already pointed out, our survey program is primarily an administrative device. Useful as it has been for this purpose, it has certain unwieldy features because sometimes it has to go a rather long way around to reach a fairly simple conclusion. For administrative purposes, we would be far better off if we had a group of people (preferably our administrators themselves) skilled at recognizing and diagnosing symptoms and dealing with the problem thus defined according to whatever therapy had been found useful for that particular type of difficulty.

It would be even more useful to be able to predict with reasonable accuracy the probable consequences of a given event or a given set of circumstances and to set in motion early a series of moves designed to minimize any adverse possibilities. We are able to do precisely this on a number of counts (for instance, cases of key executive changes) and our success here encourages us in our efforts to broaden the area in which we can predict with confidence.

As to our survey program as a whole, we are, as things stand now, somewhat in the position the medical profession would be in if the physician had to give a basic metabolism to determine whether a patient had a cold in the head. To continue the analogy, if we had a workable symptomatology (no matter how tentative), we could recognize

the head cold and treat it accordingly. On the other hand, if the symptoms in the case indicated a more dangerous or more complicated disability, we could always apply our equivalent of the basic metabolism or such other procedure as the circumstances might require.

Any typology of malfunctioning must relate, of course, to the underlying dynamic system and not merely to the symptoms. All of our research testifies to the frequency with which the identical symptom can arise from entirely different factors. In one context, complaints over wages can be a danger signal; in another, merely an indication of the normal desire of everyone to be making a little bit more than he is. Sometimes, complaints over wages can really be complaints over wages; at other times, they can be merely a convenient target against which to direct verbalizations of resentment that arise out of situations that have little to do with wages. Because of the unreliability of symptoms taken in isolation we have found it more and more useful to think in terms of syndromes. The fact that our questionnaire is so constructed as to yield results in the form of profiles has greatly aided this purpose.

The psychiatrists have found the concept of *integration* a useful one around which to organize their ideas about personality and its disorders. We think a similar concept, related to group phenomena, could form the basis of a useful typology of the malfunctioning of organization. Certainly, the degree of integration (internal and external) of any organization relates very directly to the underlying dynamic factors in operation. One type of failure of integration leads to one type of difficulty which is different from that likely to arise from another type of failure of integration. Moreover, the methods for dealing with the two sets of circumstances are likely to differ, although often many of the superficial symptoms may be identical.

The scope of this paper does not permit a systematic exposition of the concept of integration. One of its aspects, however, is suggested by consideration of the problem of size of the organizational unit. Our re-

searches demonstrate that mere size is unquestionably one of the most important factors in determining the quality of employee relationships: the smaller the unit the higher the morale, and vice versa. It is clear that the closer contact between executives and rank and file prevailing in smaller organizations tends to result in friendlier, easier relationships. To employees in such units the "big boss" is not some remote, little-known, semi-mythical personage but an actual, flesh and blood individual to be liked or disliked on a basis of personal acquaintance.

In broader terms, the smaller organization represents a simpler social system than does the larger unit. There are fewer people, fewer levels in the organizational hierarchy, and a less minute subdivision of labor. It is easier for the employee to adapt himself to such a simpler system and to win a place in it. His work becomes more meaningful, both to him and to his associates, because he and they can readily see its relation and importance to other functions and to the organization as a whole. The organization operates primarily through the face-to-face relationships of its members and only secondarily through impersonal, institutionalized relationships. The closer relations between the individual employee and the top executive in such a situation are only one aspect—but an important one—of the relatively simple and better-integrated social system of the smaller organization.

The importance of both external and internal integration is emphasized by other findings of our surveys. One of the most suggestive of these is that morale tends to be substantially lower in the large, industrialized metropolitan centers and higher in the smaller and less complex communities. For closely related reasons, morale tends to be lower in the Eastern sections of the country and higher in the West and South. Likewise, the simpler the industrial base of the community and the more homogeneous its population, the higher the level of employee morale.

These factors obviously relate, by various means, to the social characteristics of employee groups, and these social characteristics

have an important bearing on the problem of integration. In certain cities of the south, a high percentage of employees grew up in small towns or in the country. Often their first job, after migrating to the "big city," is with our company. A great many of these young people have had religious upbringing which, together with parental admonitions, emphasizes the rightness of hard work for its own sake and the moral obligation of the employee to give his employer a full day's work for a fair day's pay.

Employees of units in large metropolitan centers, particularly those located in the East, are likely to have somewhat different social characteristics. Instead of coming from smaller towns and rural communities, most of them are likely to have originated within the metropolitan area itself. Likewise, many of them are likely to be the children or grandchildren of foreign-born stock whose personalities have been strongly molded by the special circumstances and influences of growing up within ethnic communities. The marked tendency toward lower morale among employees drawn from such groups seems, in part at least, to reflect the high degree of social disorganization characteristic of the great metropolitan agglomerations.

An important element of this disorganization is the tendency for sharp cleavages to develop between different groups comprising the community, and one of the most significant of these cleavages is that between workers and management. Where the rank and file members of an organization have been drawn largely from working class homes in which factory employment has been the chief means of family support for two or three generations, their patterns of thinking and systems of value will be those of the urban working class. One characteristic of their way of life, growing out of their family and neighborhood experiences and traditions, is often a latent or overt distrust of the employer and a strong tendency to identify their security and well-being with their fellow-workers and not with the employer. The management of an organization employing large numbers of people with this type of background is thus likely to involve compli-

cations seldom encountered in what is sometimes described as the "less mature" regions of the country.

The problem, however, is by no means an insuperable one. No better testimony is needed than the survey showings of many of our own company units. Despite the fact that in some locations employees may be drawn from backgrounds representing all that is worst in social disorganization, morale in many such units is unusually high. A thoroughgoing urban working class background on the part of the rank and file is significant chiefly because it tends to create attitudes and values which do not correspond fully with those usually characteristic of management and executive groups, and because this difference in outlook frequently leads to *mutual* misunderstanding and lack of confidence. Under these circumstances, not only are management's action and motives frequently misinterpreted by the rank and file, but management itself is often at a loss as to ways and means by which it can effectively mobilize the interest and co-operation of employees in achieving the aims of the enterprise.

This gap can be bridged—and our surveys provide striking proof of that fact—by *skillful and understanding leadership operating in an organizational structure which facilitates rather than inhibits effective integration*. Both leadership and structure are of crucial importance. The structural aspect, however, has received relatively less attention. Moreover, there are a number of curious and significant interrelations between type of structure and character of leadership that will bear close investigation.

#### 4. ORGANIZATIONAL STRUCTURE

The results of our research suggest that over-complexity of organizational structure is one of the most important and fundamental causes of poor management-employee relationships in our modern economic system, and that until this problem is faced and corrected no substantial improvement in those relationships is likely to be possible.

In viewing many business enterprises, one cannot but be impressed by the number of

different departments and sub-departments into which they are divided, and the extent to which the activities of both individuals and groups have been highly specialized. In a very large number of cases, employees perform only elementary, routine functions because jobs have been broken down "scientifically" into their most elementary components. The resulting specialization undoubtedly has certain advantages, such as requiring less skilled people, shorter training time, etc. In many cases, however, the process has been carried to such extremes that jobs have little inherent interest or challenge; operations have been reduced to the simplest possible repetitive level and the worker makes nothing he can identify as a product of his own skill.

One has the feeling of division of labor having gone wild, far beyond any degree necessary for efficient production. Peter F. Drucker, in a penetrating analysis, has pointed out that over-specialization is not an inevitable consequence of mass production and that, "The traditional assembly line is simply a piece of poor engineering judged by the standards of human relations, as well as those of productive efficiency and output."<sup>1</sup>

The evidence of the studies conducted in our own company strongly support this conclusion, for we have found that where jobs are broken down too finely we are more likely to have both low output and low morale. Conversely, the most sustained efforts are exerted by those groups of employees who perform the more complete sets of tasks (e.g., salesmen, supervisors, master mechanics, etc.), and these likewise exhibit the highest levels of morale and *esprit de corps*.

The sharp trend toward over-specialization in our economy has not been limited, of course, to individual jobs. Just as particular activities have been broken down into their simplest possible components and each component assigned to a different person, so many *operations* (often after having been

<sup>1</sup>Peter F. Drucker, "The Way to Industrial Peace," *Harper's Magazine*, November, 1946.

highly "simplified") have been separated out of the broader complex of activities of which they are a part and set up as specialized and semi-independent organizational entities. While over-specialization of individual jobs is serious enough, this over-specialization of the functions of entire departments and sub-departments has even more far-reaching consequences.

For one thing, it brings together in one place large numbers of employes on the same job level (and that level is likely to be fairly low where there has been any considerable over-specialization of individual jobs). This is another way of saying that the size of the administrative unit has been greatly expanded. Let us suppose an organization which performs three essential functions, A, B, and C. Let us suppose further that the volume of output requires three units of each function. Under these circumstances the organization could be set up in either of two ways:

1. It could be set up in three divisions, each function (A, B, and C) being represented in each division and each division, therefore, being a relatively independent administrative entity.

2. On the other hand, the organization could be set up in three *functional* divisions, one division having all three A units, another all three B units, and the third all three C units. In this case, none of the three divisions has any independence; each can operate only in closest coordination with the other two. Under the first alternative, there are really three administrative units; under the second only one, and that, by definition, three times as large.

This second type of arrangement is typical of much modern organization practice, both in industry and government. It is assumed that this separation and specialization of activities will permit better supervision, make possible smoother scheduling, and generally improve efficiency. There may be a certain spurious efficiency in this kind of organization but it is likely to have many off-setting liabilities.

One of the most serious of these liabilities is the fact that it so greatly expands the size

of the administrative unit. Much of industry's present vast scale of operation is required not so much by economic or technical factors as by an unhappy and unnecessary principle of organization. The experience of many companies, of which my own is one, demonstrates that it is entirely possible to have many of the economic and technical advantages of large size without sacrificing too many of the essential human advantages of small size.

A further liability of over-functionalization is the fact that, from the standpoint of the individual employe, it tends to destroy the meaning of the job. He and those around him are working at highly specialized tasks which have meaning to management because they are a necessary part of a total process. But the worker cannot see that total process; he sees only the small and uninteresting part to which he and his fellows are assigned. In a real sense, the job loses its meaning for the worker—the meaning, that is, in all terms except the pay envelope.

Thus a very large number of employes in American industry today have been deprived of the sense of performing interesting, significant work. In consequence, they have little feeling of responsibility for the tasks to which they are assigned. Management in its efforts to maintain production in face of the resulting apathy is likely to resort to increasing supervisory pressure, but this procedure only creates more resistance on the part of employes. Sometimes the resistance is only passive, in the sense that employes fail to respond to the pressure or find means of avoiding it. Under certain circumstances, however, it can take more active form and lead to the creation of resistance groups in which employes band together (commonly through union organization) to exert a corresponding pressure against supervision and management.

Over-functionalization thus requires close and constant supervision at the work level to maintain production. Furthermore, the supervisors themselves must be closely supervised and controlled to assure the necessary degree of coordination between the many

different units into which the organization has been sub-divided. In a simpler type of organization structure, coordination can usually be achieved on a fairly informal basis because there are fewer artificial barriers in the form of departmental separations and lines of authority.

Where the work of the organization is broken down into so many functional divisions, however, cooperation can no longer be achieved spontaneously. After all, each functional unit was set up as a distinct entity in order that it might achieve a more efficient system. Each unit, therefore, tends to operate primarily in terms of its own systems rather than in terms of the needs of the other departments with which it must cooperate. Each unit becomes jealous of its own prerogatives and finds ways to protect itself against the pressure or encroachments of others. Conflict develops on the employee as well as the supervisory level, thus forcing an extra load on higher levels of management who must be constantly reconciling differences.

In order to achieve the necessary degree of coordination and cooperation between administratively separated functions, management is thus forced not only to build up an elaborate hierarchy of many supervisory levels, but to institute a wide variety of formal controls. Unfortunately, these controls are themselves often a source of conflict, because the individual supervisor or manager is under strong compulsion to operate in such a manner as to make a good showing in terms of the particular set of controls to which he is subject, and often he can do so only at the expense of impairing the service he is expected to render to other departments. This conflict is particularly acute when two closely related functions report up two different administrative lines and operate under two different systems of standards and controls.

The management of organizations which have been over-functionalized to the extent characteristic of much of modern business imposes a severe burden on the top administrative staff. Functions and activities have been so subdivided and specialized that no

individual unit can operate except in closest coordination with others, and the system is often so complex that this coordination cannot take place spontaneously. If it is to occur at all, it must occur on the basis of specific administrative action from the top, which requires the development of a specialized staff to assist the top administrator.

This growth of staff complicates the situation still further, because an evitable consequence is the elaboration of formal controls of various kinds to permit the staff to perform the functions and exercise the responsibilities which have been delegated to it or which it gradually assumes in an effort to strengthen its own position or extend its own authority. The result is a gradual undermining of the line organization for the benefit of the staff, an impairment of flexibility and adaptability, and a weakening of the effectiveness of the entire organization.

An objective appraisal suggests that to too large an extent work processes have been analyzed from a strictly "rational" or mechanical point of view with too little attention to the human factors involved. As a result, functions have been separated out of their context and set up as semi-independent activities. Necessary collaboration and cooperation between the units thus artificially separated becomes possible only through an elaborate system of controls and a complicated administrative hierarchy. Under these circumstances, management necessarily becomes strongly centralized, despite the frequently expressed concern of business leaders over the need for greater delegation of authority and responsibility. Too often, this is simply impossible because the nature of the organization structure makes effective decentralization impossible. For much the same reason, such organizations often require from their top administrators a high degree of driving pressure to hold the system together and make it operate with a reasonable degree of efficiency.

Where this is the case, executives and supervisors down the line quite understandably tend to pattern their own methods after those of their superiors. In many cases

the copying may be done unskillfully and in such a way as to exaggerate the worst features of the pressure methods. As a result, supervisory methods at the middle and lower levels of over-functionalized organizations are often crude and inept.

Furthermore, the degree of pressure often required from the top is likely to create an atmosphere of anxiety and apprehension within the executive and supervisory group. This atmosphere tends to amplify the severity of pressure as it moves downward in the organization, so that even a moderate amount of pressure at the top is often greatly magnified by the time it reaches the lower levels. Attitudes of mind characterized by fear and apprehension are not particularly conducive to real skill in managing and leading subordinates. Above all, poor supervisory techniques at the lower levels of an organization generally reflect the experience and type of supervision to which the supervisors themselves have been subjected over the years and which they have come to accept as normal and expected behavior.

The significant point in all this, however, is that the over-complex, over-functionalized organization structure is likely to require the driver type of leader; the over-use of pressure as a tool of supervision is thus related primarily to the character of the structure and only secondarily to the character of the individual at the head of it. (On the other hand, it is recognized that the personality of the top man may have a great deal to do with the kind of organization structure he sets up. This entire problem of the reciprocal relationships between structure and personality should be studied carefully.)

##### 5. SYSTEMS COMPARED

The most striking feature of the over-elaborate type of organization structure is its lack of integration, a deficiency which can be only partially and very unsatisfactorily overcome by driving pressure from the top. Our studies suggest that this type of structure is not only bad human relations but equally unsound from a standpoint of productive efficiency. Our studies also suggest that alternative systems of organization are

conceivable and eminently practical.

For one thing, we seriously question the necessity for much of our present high degree of over-specialization and over-functionalization. The so-called "scientific management movement" which has given such impetus in this direction is based to a considerable extent on an extremely inadequate conception of human motivation and social organization. It has tended to approach the problems of management from an almost purely mechanistic point of view and has tried to organize human efforts in much the same way an engineer might design a machine. Much of our present over-specialization is based on this type of thinking.

However, the experience of a number of companies indicates that individual jobs and departmental functions need not be broken down to this degree in order to achieve productive efficiency. Quite the contrary; their experience has been that both efficiency and morale are best served by keeping specialization to a minimum. The experience of these companies likewise indicates that organization structures and administrative hierarchies can be vastly simplified, thus making possible a far higher degree of decentralization of authority and responsibility.

In the course of our survey work we have had an opportunity to study a fairly wide variety of organization structures. We have been struck by the sharp contrasts between otherwise comparable units which differ mainly in the complexity of their organizational structure and in the degree to which authority and responsibility are effectively decentralized to those farther down the line. A review of some of these contrasts may be instructive.

In the more elaborate and complex organizations, the individual supervisor or executive is subject to constant control and direction and has little opportunity to develop the qualities of initiative and self-reliance. In systems characterized by extensive management decentralization, primary reliance is placed on the personal initiative and capacity of the people in the organization. There is usually a conspicuous lack of detailed

supervision and of formal controls, and executives and supervisors (and to a large extent rank and file employes) enjoy considerable freedom in the way they accomplish their jobs.

They are judged primarily by their results, not on the details of the way they get those results. This concentration on end-results rather than on system and controls, together with management's alertness to recognize and reward good results, develops initiative and self-reliance and generates a far more powerful driving force than could ever be imposed from the top down. This pattern of administration not only gets today's job done better but permits the individual to grow and develop in a way that is impossible in more centralized systems. Furthermore, it contributes strongly to morale because employes work in an atmosphere of relative freedom from oppressive supervision and have a sense of individual importance and personal responsibility which other types of arrangements often deny them.

A number of highly successful organizations have not only paid little heed but have gone directly counter to one of the favorite tenets of modern management theory, the so-called "span of control," which holds that the number of subordinate executives or supervisors reporting to a single individual should be severely limited to enable that individual to exercise the detailed direction and control which is generally considered necessary. On the contrary, these organizations often deliberately give each key executive so many subordinates that it is impossible for him to exercise too close supervision over their activities.

In this type of organization structure, the individual executive is thrown largely on his own to sink or swim on the basis of his own ability and capacity. He cannot rely to more than a limited extent on those above him, and these superiors, by the same token, cannot too severely restrict, through detailed supervision and control their subordinates' growth and development.

Not all individuals can function effectively in this type of set-up. It requires a very large

measure of self-confidence and personal capacity. The system tends to weed out those who lack these qualities in adequate degree. Those who are able to adapt to this type of organization, however, are likely to be not only better executives but also the type of people who can build and maintain teamwork and cooperation and a high level of employee morale, not so much because they consciously attempt to do so but because these results are a natural by-product of their ways of operating and a reflection of their own personalities.

On the other hand, in organizations characterized by many levels of supervision and elaborate systems of controls, the individual not only has little opportunity to develop the capacities of self-reliance and initiative but the system frequently weeds out those who do. Furthermore, those who survive in this type of organization are often likely, by virtue of the very qualities which enabled them to survive, to have personalities and ways of operating which do not make for greatest skill in building employee teamwork and cooperation.

An organization with few layers of supervision and a minimum of formal controls places a premium on ability to stimulate and lead. The driver type of executive, who functions through maintaining constant pressure and whose chief sanction is fear cannot operate as effectively in such an organization. In the more simple types of organization structures, where management has been effectively decentralized, an executive accomplishes results and moves to higher levels of responsibility chiefly to the extent that he is able to secure the willing, enthusiastic support of his colleagues and subordinates; he does not have the "tools" (with which a more centralized system would to some extent provide him) to accomplish the result in any other manner. The outcome is not only a higher level of accomplishment but, at the same time, a more satisfying type of supervision and a higher level of employee morale.

#### 6. CONCLUSION

Our studies have shown that employee morale and operating efficiency are closely

related to the degree the organization is integrated. Integration is not necessarily achieved, however, when the organization meets the requirements of machine-logic. As a matter of fact, what may appear to be logical from a purely technical standpoint may run directly counter to the personal and social demands of employees. We have seen a number of organizations which have a logical technology, division of labor, and hierarchy of control but which are badly disorganized from the standpoint of the actual working relationships of the people involved. Such organizations are well-integrated only on paper. In actual fact, they are irritating and frustrating from the standpoint of employees and inefficient, troublesome, and costly from the standpoint of management.

Our research indicates that two trends in particular are making effective integration difficult and contributing to the progressive deterioration of management-employee relations. One is the trend toward increasing size of the administrative unit; the other, the trend toward increasing complexity of organ-

izational structure. Both trends appear logical in terms of widely held theories of business organization, but in both cases improvements in mechanical efficiency are at some point over-balanced by losses in the willingness and ability of employees to cooperate in the system. Moreover, the larger, more complex organizations are likely to become unadaptive and rigid, and to find it difficult to meet the requirements of economic and social change.

Intelligent planning on the part of management in setting up the formal structure of organizations can do much to improve the quality of human relations in industry. Flatter, less complex structures, with a maximum of administrative decentralization, tend to create a potential for improved attitudes, more effective supervision, and greater individual responsibility and initiative among employees. Moreover, arrangements of this type encourage the development of individual self-expression and creativity which are so necessary to the personal satisfaction of employees and which are an essential ingredient of the democratic way of life.

## THE STRUCTURE OF FACTORY CONTROL IN THE SOVIET UNION

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THIS PAPER is concerned with the system of control operating in the Soviet factory as a socio-economic and administrative unit. The discussion will begin with an enumeration and brief description of individual control agencies. This will be followed by an effort to define government, Party, public, and voluntary systems of control in terms of their distinctive features. In the end a survey of the basic aspects of the over-all system of factory control will be essayed.

The concept of control, as it will be used here, refers to the entire gamut of agencies and channels devised and used by the Soviet

government and the Communist Party for the purpose of forestalling any deviations from the legal and normative provisions sustaining the Soviet system. It differs from the very narrow meaning of the official Soviet concept of "control," which has been defined by Stalin as "checking up on the fulfillment of the decisions of the central bodies of the Soviet government" (government control), and "of the decisions of the Party and its Central Committee" (Party control).<sup>1</sup> Our concept is substantially broader. In addition

<sup>1</sup> J. Stalin, *Problems of Leninism*, 11th edition, Moscow, 1947, p. 515.

to checking on the fulfillment of government and Party decisions it includes the checking on the adherence of individual institutions and enterprises to the statutes regulating their internal organization and to the relevant laws, decrees, and non-codified socialist norms.

In terms of a typical factory, control consists (a) of supervising the fulfillment of the annual quota of production and the utilization of credits in a manner stipulated by the annual "industrial and financial plan" (*prom-finplan*); (b) of checking on the adherence of management, technical staff, and trade union bodies to the rules of the internal organization of the factory and the distribution of responsibilities; and (c) of guarding "the state security and social order." All of the many control agencies operating in the factory have one thing in common: they are engaged in systematic work dedicated to safeguarding the absolute authority of the Soviet regime and the all-embracing interests of the state. They are integral components of a comprehensive system of control, which is exercised by four distinct sets of agencies: government offices, the Communist Party, public organizations, and voluntary groups.

#### THE AGENCIES OF CONTROL

##### 1. Government Offices

The Soviet factory is owned by the state and administered by the government. Accordingly, it is not only an economic organization but also a part of the government: it is the smallest unit in the hierarchical structure of state industrial administration. Government agencies which exercise control over various phases of factory work are individual bureaus embraced within the organizational pyramid of industrial management (i.e., the offices which simultaneously manage and control), and special organizations engaged exclusively in the work of control (i.e., the offices which control but do not manage). The following are the government agencies, in terms of their basic features, which hold definite places in the over-all network of factory control.

##### *Central Board of Industrial Management.*

The factory is directly (a "two-link" system) or indirectly (a "three-link" system), that is, through an intermediary trust, subordinated to the corresponding Central Board of Industrial Management (*Glavk*).<sup>2</sup> The latter office issues directives for the organization or reorganization of individual establishments, introduction of technological innovations, implementation of cost-accounting provisions and related functions. It also exercises rigid control over the fulfillment of its orders by individual managements. Its control extends only to factory management and is exercised by special "control-inspection groups."<sup>3</sup>

*Trust.* Many functions of the *Glavki vis-à-vis* the factories are carried out by intermediary trusts (or industrial combines in light industries). These bodies determine the annual "industrial and financial plan" of each subordinated factory and decide upon its change. They also issue directives for the procurement of raw materials and credits, fix prices of finished products, and decide upon the variety of management. Control exercised by trust is direct and daily.<sup>4</sup>

*Management.* Factory administration is organized on the principle of "one-man management" (*edimonachalie*). The Director of a factory, appointed by the Minister within whose jurisdiction his factory falls, is an indisputable master of the enterprise: he has the first and final word in all decisions concerning the details of production. He delegates certain phases of his power to the chiefs of shops (*nachalniki tsekhov*) who directly manage within their departments all the activities pertaining to the organization of production and technological processes, and who employ, dismiss, and transfer workers. Directly subordinated to the chiefs of shops are foremen (*mastera*), as a rule engineers, who provide direct contact

<sup>2</sup>I. D. Levin and A. V. Karass, eds., *Osnovi sovetskogo gosudarstva i prava*, Moscow-Leningrad, 1947, p. 264.

<sup>3</sup>S. S. Studenikin, *Sovetskoe administrativnoe pravo*, Moscow, 1940, p. 84.

<sup>4</sup>I. I. Evtikhiev and V. A. Vlasov, *Administrativnoe pravo SSSR*, Moscow, 1946, pp. 297-298.

between management and workers. All orders are channelled to the workers through foremen, who are also empowered to impose punitive measures upon the violators of labor discipline. It is upon their recommendations that the chiefs of shops employ and dismiss workers. The Director, chiefs of shops, and foremen rule the factory, bear full responsibility for the fulfillment of the plan, and control all the phases of production.<sup>5</sup>

*The Ministry of State Control.* This ministry was organized on September 6, 1940 as a successor to the State Control Commission. It exercises minute control over cash expenditures, cost-accounting, and, in general, the carrying out of administrative orders. It operates through an elaborate system of Controllers-General (one for each branch of administration) and their staffs of senior controllers, controllers, and junior controllers. Cooperating with these agents are senior and junior inspectors. Junior controllers are established in all the important enterprises and act independently of factory management. Their control is twofold: preliminary and terminal. The first consists of checking on the legality of estimates, plans, and expenditure allotments before any payments have taken place. Its function is to forestall possible deficiencies. The second consists of auditing factory books for the purpose of unveiling unwarranted expenditures and hidden reserves.<sup>6</sup>

*The State Planning Commission.* This all-important body is empowered not only to draw plans for current and future economic activities but also to control individual enterprises. Its agents are referred to as "the guardians of planning discipline."

*The Control-Inspection Board of the Finance Ministry.* This highly centralized control agency, operating through its own controllers-inspectors, has the right to audit the books of any industrial enterprise and to report all deficiencies to District Attorney.

#### *District Attorney (District Procurator).*

The organs of the Procurator, acting independently of any other government agency, exercise control over the observance of general laws, decisions, and orders by both management and trade union organization. Their control is centered on such cardinal assignments as the protection of "socialist property," the maintenance of working discipline, and "the safeguarding of labor."<sup>7</sup> They are known as "the guardians of legality."

*State Arbitration.* This office is neither an administrative nor a judicial organ of the government, though it possesses some features of both. It is assigned the task of ironing out disagreements emerging in contract negotiations between various enterprises. It is fully empowered to supervise the fulfillment of contracts and plans; accordingly, it performs one of the most important functions of industrial management. It reports all irregularities either to its higher offices or to the Procurator.<sup>8</sup>

*The Organs of State Security.* The special police, subordinated to the Ministry of State Security, is attached to each district (*raion*) Soviet, but is directly responsible to the special police administration within the regional (*oblast*) Soviet. Its function is to combat sabotage, political nonconformity, and "counter-revolutionary" forces in general.

*The Workers' and Peasants' Militia.* The district unit of this organization is assigned the task of preventing disorders and safeguarding socialist property. Special sections of the Workers' and Peasants' Militia, identified as "departmental militia" (*vedomstvennaya militsiya*), are organized in larger plants by specific agreements between individual factory managements and the Ministry of Internal Affairs. They guard the objects of "special state importance."<sup>9</sup>

<sup>5</sup> B. I. Arsenov, "Iz istorii uchrezhdeniya sovetskoi prokuratury," *Sovetskoe gosudarstvo i pravo*, no. 5, 1947, pp. 22-31.

<sup>6</sup> V. N. Mozheiko, "O pravovoi prirode sovetskogo gosudarstvennogo arbitrazha," *Sovetskoe gosudarstvo i pravo*, no. 6, 1947, pp. 16-23.

<sup>7</sup> Evtikhiev and Vlasov, *op. cit.*, p. 202.

<sup>8</sup> *Ibid.*, pp. 298-299. See also Gregory Bienstock, Solomon M. Schwarz, and Aaron Yugow, *Management in Russian Industry and Agriculture*, Oxford University Press, 1944, pp. 8-16.

<sup>9</sup> S. S. Studenikin, *op. cit.*, p. 84.

## 2. The Communist Party

The 18th Party Congress (1939) passed a decision that the entire work of management is subject to control by the primary Party organization.<sup>10</sup> The latter is encouraged "to establish Party guidance in each enterprise." In its broadest aspects Party control is centered on the fulfillment of production quotas, proper expenditures of funds, protection of socialist property, and administration of social insurance. Specifically: "The purpose of control by the Party organization [in a plant] is to assist the commanders of production in their daily work. The Party organization states irregularities, and recommends the steps to be undertaken by management for the purpose of enabling the enterprise to perform standard work and to observe technological discipline and the plan. In its control of the work of the [plant] administration the Party organization must strengthen the principle of one-man management. It must enhance the authority of the manager by seeing that his orders and directives are strictly fulfilled."<sup>11</sup>

## 3. Public Organizations

These are semi-official mass associations assisting the government agencies in performing their routine work and helping the Party in its role of a mobilizing, recruiting, and controlling force. With the exception of trade union organizations, which administer the Labor Code, these bodies cannot execute government orders without guidance by proper government bureaus. Their decisions are mandatory only for their own members. Only two public organizations operate in the factory: the primary trade union organization and the Young Communist League (*Komsomol*).

The factory trade union committee is commissioned by the stipulations of the standardized collective agreement to watch over

the conformity of the applied wage scale to legal provisions. It also controls expenditures from the Director's Fund, and internal factory order.<sup>12</sup> With the abolition of the People's Commissariat of Labor in 1933 and the Workers' and Peasants' Inspection in 1934 the functions of the local offices of these bodies were transferred to trade union organizations. These functions consist primarily of checking on managerial observances of those provisions of the Labor Code which deal with the well-being of workers, sanitary conditions, and safety techniques. This control is performed by special "public inspectors" who are elected by trade union organizations.<sup>13</sup> The trade union members are entitled to hold "production conferences" at which they are informed about the current plans and are called upon to state mistakes and unwarranted acts perpetrated by management.<sup>14</sup>

The *Komsomol*, acting under the immediate supervision and under the direct guidance by the Party, looks after the correct application of government and Party decisions by both management and the primary trade union organization. The 17th Party Congress (1934) decided that special attention be given to the organization of *Komsomol* "light cavalry" units which focus their work on exposing managerial deficiencies.<sup>15</sup>

The press, although it is not considered a public organization, has been entrusted with an important assignment in the system of public control. It is an effective medium for unveiling deficiencies in the application of relevant laws and decisions. The press also publicizes the experiences in control carried out by various agencies and is, accordingly, considered a factor contributing to the improvement of forms and methods of general or special supervision.

<sup>10</sup> A. E. Pasherstnik, "Voprosi kollektivnogo dogovora v SSSR," *Sovetskoe gosudarstvo i pravo*, no. 4, 1948, p. 51.

<sup>11</sup> N. Ritikov, "Sovetskie profsoiuzi," *Bolshaya Sovetskaya Entsiklopediya: SSSR*, Moscow, 1947, p. 1756.

<sup>12</sup> E. Sokolov, "Sovetskie profsoiuzi—shkola kommunizma," *Bo'shevik*, no. 2, 1949, p. 46.

<sup>13</sup> XVII S'ezd VKP (b): *Stenograficheskii otchet*, Moscow, 1934, p. 673.

<sup>14</sup> XVIII S'ezd VKP (b): *Stenograficheskii otchet*, Moscow, 1939, p. 676.

<sup>15</sup> Evtikhiev and Vlasov, *op. cit.*, pp. 271-272. See also: B. Moore, Jr., "The Communist Party of the Soviet Union: 1928-1944," *American Sociological Review*, vol. 9, no. 3, 1944, pp. 270-276.

#### 4. Voluntary Groups

The factory, as many other Soviet organizations, is interspersed with various voluntary groups, which work as adjuncts of government and Party control agencies. As a rule, these specific voluntary groups are not components of any mass associations but operate on a purely local basis. The most popular voluntary agencies are special control boards, composed of representatives of both management and labor, which are appointed under the authority of the Ministry of State Control. Another important group consists of the *aktivs* organized on the initiative of the Communist Party for control over specific production processes. Finally, each factory has an auxiliary militia (*brigadmil*), which consists of volunteers recruited from among factory workers and operates under the direction of district branches of the Workers' and Peasants' Militia.<sup>16</sup>

#### THE DISTINCTIVE FEATURES OF THE FOUR SYSTEMS OF CONTROL

(1) Control exercised by government agencies, which outnumber all other agencies put together, is professional-bureaucratic and specialized. Its agents are specifically trained and technically equipped to handle the minutiae of very specialized control objects. Unlike the functionaries of other supervisory bodies, the agents of the government system of control are legally responsible for the non-fulfillment of their assignments. They are vested with the right to undertake legal measures against the individuals deviating from the existing orders, norms, and plans. They constitute the most systematic and thorough branch of the over-all network of control agencies; they are the basis of the control system.

In their internal organization government agencies are subordinated exclusively to vertical intragroup control, i.e., to the control by their corresponding agencies operating at higher administrative-territorial levels. The

District Procurator, for example, is controlled by, and is accountable to, the Regional (Territorial) Procurator, who, in turn, is subordinated to the Union-Republican Procurator, and this to the Procurator-General of the U.S.S.R. The same rule applies to the organs of state security, internal affairs (police), state arbitration, industrial management, state planning, and state control.

It is significant that local Soviets are not assigned any functions in the control of the factory unless the latter is extremely small and of purely local importance. Local Soviets, which according to the Soviet Constitution (Article 3) are in command of "all power in the U.S.S.R.," have been totally overshadowed by control agencies staffed with bureaucracy (i.e., non-elective personnel).

(2) Party control is first of all universal. This means that there is no phase of the political, ideological, or socio-economic "front" which is not wide open to Party control. It is an intra-factory control and therefore it is continuous. It is unilateral, a privilege granted to no other organization in the U.S.S.R.: it controls all other control agencies but is not subject to control by them. Since Party control is non-bureaucratic and non-professional it would seem that it is not ideally fitted for highly technical assignments (measuring of labor productivity, setting forth and administering rates of output and norms of production, auditing). In order to overcome this difficulty the Party resorts to the creation of *ad hoc aktivs* for the performance of such highly specialized functions. However, the *aktivs* are temporary bodies and are usually created after "violations" have taken place. This "difficulty" is more than counterbalanced by a special feature of Party control, which actually constitutes the core of its predominant position in the complex network of institutionalized control: the Party exercises its control not only through its directing bodies but also by means of a distribution of its members throughout all other control agencies. Management, trade union organization, police, and all other control

<sup>16</sup> The *brigadmil* should not be confused with the so-called departmental militia, mentioned *supra* p. 5, which consists of regular militiamen.

forces are permeated by Communists, who are "the eyes and ears" of their respective Party organizations.

Since the Party units are not subject to control by any outside agency their internal control is tighter and more rigid than that of any other organization. The directing body (bureau) of the factory Party organization is subordinated to triple intragroup control. It is controlled by (a) the primary Party organization, that is, by the members who have elected it (horizontal control); (b) the territorial Party organization to which it is directly subordinated and accountable (vertical control); and (c) the special agents of the Party Control Commission, a central office subordinated directly to the Central Committee of the Communist Party (diagonal control).<sup>17</sup>

(3) Control exercised by public organizations is for the most part non-specialized and has been devised primarily to serve as an auxiliary of the Party and government systems of control. The agencies of public control are not vested with the right to undertake legal measures against the violators of the law, but only to report their "findings" to proper government and Party quarters. In their intragroup relations they are subject to horizontal and vertical control. The factory trade union committee, for example, is controlled by the general meeting of trade union members of the particular factory (horizontal control), but it is at the same time subordinated to and controlled by the district trade union committee (vertical control). It should be stressed, in this connection, that according to one of the principles of the so-called Soviet "democratic centralism," decisions passed by higher bodies are mandatory for lower bodies. This means that control exercised over the factory trade union committee by its membership (horizontal control) is actually auxiliary to the control exercised by the district committee. This implies that, in the final analysis, the factory trade union committee

is controlled by the All-Union Central Council of Trade Unions through intermediary organizations at different administrative-territorial levels. A similar pattern of dual intragroup control is followed by the *Komsomol*.

(4) Voluntary control is specialized but non-bureaucratic, that is, it does not call for permanent staffs. It may require high skill from its members (*aktivs*), or it may consist of purely mechanical assignments (auxiliary militia). These groups have no independent status: they are adjuncts of Party and government agencies. They are internally controlled by their respective memberships (horizontal control) and by Party and government organizations whose adjuncts they are (vertical control).

#### THE OVER-ALL SYSTEM OF FACTORY CONTROL

The Soviet factory is subject to a comprehensive system of intertwined controls. Every aspect of human life, varying from political-ideological behavior to the application of technological principles, is under constant and thorough surveillance.

The strands of the control web are multitudinous and provide open avenues for "checking up" on everybody by everybody. Control functions are differentiated but the demarcation lines are not clear-cut and allow for an extensive overlapping. The more important a control object is the more agencies focus their attention on it.

Soviet authorities have formulated various types of discipline, which may be regarded as indices of principal aggregates of control objects. "Socialist discipline" denotes adherence not only to juridical norms but also to non-codified socialist maxims. Its chief guardian is the Communist Party, while most of the other control agencies are concerned with various facets of it. "State discipline" refers to full compliance with the existing laws and administrative decisions and orders. Its chief protector is the Procurator ("the guardian of legality") with the assistance of all other control agencies. "Planning discipline" implies consistent work toward full implementation of the annual "industrial and financial plan" in terms

<sup>17</sup> For a succinct description of the development of this office see: Julian Towster, *Political Power in the U.S.S.R.*, New York: Oxford University Press, 1948, pp. 171-174.

prescribed by higher government authorities. The agents of the State Planning Commission, the Ministry of State Control, the Finance Ministry, the corresponding industrial ministry and the State Arbitration are its chief guardians. "Production discipline" signifies adherence to the prescribed arrangement of compound activities bearing on production and is guarded by managerial as well as non-managerial government control agencies with the assistance of the trade union organization and most other groups. "Technological discipline" implies full observance of prescribed technological processes and is guarded by the managerial hierarchy with the assistance of the trade union organization. "Labor discipline" refers to full compliance with the internal distribution of work assignments and with the social and cultural provisions of the Labor Code. Its chief guardians are the trade union organization and management.

"Socialist discipline" is a generic concept including all other disciplines as its constituent elements. Accordingly, the safeguarding of "socialist discipline" is equivalent to the safeguarding of all other disciplines put together. The Communist Party as the supreme watchdog of "socialist discipline" is automatically the indisputable guardian of state and Party interests in the factory; in brief, it commands universal control and has been devised to serve as a unifying force in the over-all system of factory control.

The organizations and their members engaged in the field of control are constituents of an over-all hierarchical system. The Communist Party occupies the top layer of the hierarchy by virtue of its paramount assignments of safeguarding "socialist discipline" and controlling all other control agencies. Government agencies, run by bureaucracy, constitute the second layer. They provide specialized, professional, competent, and responsible control. They hold all the arterial strands of control in their hands. Public organizations occupy the third layer; they are Party and government auxiliaries. At the bottom are voluntary groups which operate either as satellites of individual government agencies or as temporary bodies sponsored

by the Party. The hierarchy in the control structure does not follow the pattern of hierarchized statuses of factory personnel, for persons of equal status may be distributed among all four groups. In fact, the vertical differentiation of control systems cannot be defined in terms of a single classificatory principle. While the primary Party organization possesses supreme *authority* in the over-all system of control, the government bureaucracy commands the highest degree of *competence*. The basic difference between control performed by public organizations and voluntary groups lies not in their mastery of different scopes of authority and competence, but in the fact that the former holds relative permanence and a wider range of operations. This absence of a uniform classificatory principle is not of purely theoretical interest; in fact, it is indicative of an incomplete integration of the system of control and of an inadequate coordination of various control functions. While the wide overlapping in the guarding of the above-mentioned disciplines by various control agencies is calculated to reinforce the over-all system of control, its actual contribution to the integration of factory control is rather negative for it is based on extensive duplication of responsibility which breeds intergroup conflict and general apathy.

The present-day system of control, crowning a rapid development during the last two decades, has engendered a series of acute problems. Control bureaucracy, which tends to operate within an orbit of stereotyped procedures, is frequently under attack for its inflexibility, tendency to impart independent interpretations to government decisions or to shelve them, and passive resistance to innovations. Furthermore, decentralized control has to a considerable degree curtailed the power of centralized management and it has brought about new confusion in the distribution of responsibilities and prerogatives. Conflicts between the primary Party organizations and managements are daily occurrences, and "one-man management" has not yet been fully consolidated.<sup>18</sup>

<sup>18</sup> E. Sokolov, *op. cit.*, p. 47.

During recent years the Soviet authorities have made frequent references to the forthcoming transition of Soviet society from socialism to communism. In communist society, according to its champions, work will become a habit, a "need of each man," and therefore no compulsion for work will be needed. In contrast to this program-

matic dictum, no traces have yet been manifested of a relaxation of organized control, which, in the final analysis, is a device for compelling each individual to do his assignment in a prescribed manner. In fact, all available facts point to a gradual development of a more stringent and ubiquitous control.

## AN IRON WORKERS' COMMUNITY IN JAPAN: A STUDY IN THE SOCIOLOGY OF INDUSTRIAL GROUPS\*

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THE STUDY of human organization in industrial groupings is a favorite of contemporary sociology. Most of the studies, however, have confined their attention to modern, highly rationalized plants; few have been concerned with the institutions of a pre-rationalized stage of those transitional between these extremes. This neglect appears to reflect the near disappearance of the latter type of institution from the Western World. Yet in Japan, notwithstanding the rapid development of rationalized industry after the Restoration of 1868, such instances remain here and there even today. In this paper the writer presents some observations on the life of iron working communities in Shimane Prefecture, Japan, where certain characteristics of a pre-rationalized industrial organization have remained until quite recently. The more important of

these characteristics may be summarized as follows: (1) the persistence of a traditional method of iron smelting, the origin of which is associated with a myth, (2) the existence of a special dependency relationship between the workmen and the owner of a smeltery, and a hereditary occupational system, (3) the existence of a strong *esprit de corps* among the workmen based on faith in a guardian deity, and (4) the closed and isolated nature of the community. To discuss these points very briefly:

(1) The traditional method of smelting is known as "*tatara*-blowing."<sup>1</sup> By this method, raw steel is taken directly from iron sand, a foot-bellows being used. This method of manufacture is reported to be peculiar to Japan.<sup>2</sup> It is of ancient origin and believed to be connected with the myth of *Yamata-no-orochi* (the great snake with eight heads).<sup>3</sup>

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The observations for this paper were made in September, 1944, during a half-month's trip to several smelteries in Shimane Prefecture, Japan. At that period, the smelteries were enjoying a brief period of prosperity.

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<sup>1</sup> The term "*tatara*" is generally used for the whole of a smeltery, but also sometimes indicates only the foot-bellows.

<sup>2</sup> Among neighboring countries, a similar method is found only in Fukien Province, South China, and Cambodia. Dr. Kuniichi Tawara, a well-known specialist, notes that Korean, Manchurian, and North Chinese methods are quite different. See Kuniichi Tawara, *Kodai no Satetsu Seirenhō* (*The Ancient Method of Iron Sand Smelting*), Tokyo, 1933, p. 132.

<sup>3</sup> A famous myth found in the *Kojiki* (*Record of Ancient Matters*). According to Dr. Shinichirō Yamada, "*Jindai-shi to Chūgoku Tetsuzan*" ("History of the Mythological Age and Iron Smelteries

Until the Kamaishi mine opened and large-scale smelting from iron ore began during the Bunsei period (1818-1829), *tatara* blowing was the only method of iron manufacture used in Japan. With the importation of cheaper foreign steel products and the development of foreign smelting techniques in Japan after 1868, the old method of smelting fell into disuse. However, with the beginning of the Manchurian Incident (1931), this form of manufacture was revived, in response primarily to a demand for Japanese swords.<sup>4</sup>

(2) The owner of a smeltery was commonly called *oyakata*. The relationship between him and his followers is an example of the so-called *oyabun-kobun* relationship, which often appears as a structural element of social groups in Japan. Briefly, the *oyabun-kobun* (literally, "parent-child") relation is one of provider-dependency roughly analogous to the patron-retainer relationships of the Mediterranean and Latin-American worlds. An *oyakata* was not simply a manager, still less an entrepreneur or capitalist in the modern sense. His relation with his followers was not impersonal as are those of the modern rationalized factory, but essentially personal and structured in terms of kinship. Most *oyakata*-worker relationships were hereditary. A smeltery workman, especially if he were an eldest son, inherited both his father's occupation and position in the smeltery, serving the same *oyakata* as had his father.

(3) Smeltery workers lived around their *oyakata's* house, constituting a community known as the *sannai* (literally, "within the smeltery"). The physical community included

in the Chūgoku District"), *Rekishi Chiri*, Vol. 29, 1917, pp. 519 *et seq.*, ancient documents, such as the *Engishiki*, *Nihonkōki*, etc. testify that iron smelteries were being operated on a fairly large scale by the Enrei period (782-805 A.D.). Also, according to *Kōzan Hattatsu-shi* (*A History of the Development of Mining*), Mining Bureau, Ministry of Agriculture and Commerce, 1900, documents attest to the existence of the Sugaya smeltery, Yoshida Village, Shimane Prefecture, in 904.

<sup>4</sup>It is commonly said that most ancient Japanese swords were made of steel obtained from the iron sand of this area.

the smelter, forge, office and the houses of workers' families. The *sannai* group worshipped a guardian deity, a goddess popularly called *Kanayagosan* who, according to a legend of the district, first gave the people the *tatara*-blowing technique. The belief that this guardian deity was wonderfully responsive to prayers still appeared to be common at the time the writer visited the area.

(4) The *sannai* was a closed and isolated community, separated from the ordinary farming villages nearby. It was physically isolated from neighboring villages, being commonly situated on a hillside. Socially it was a closed community, marriages between the more important inhabitants of the *sannai* and residents of neighboring villages, for example, being formerly very rare.

#### HISTORY

The residents of the district studied hold that the present-day iron workers are descendants of a group, known as the "iron-mine tribe," who lived in the area in antiquity, and are believed by some to have been immigrants to this region.

A number of conjectures have been made concerning the lineage of the "iron-mine tribe," the country from which they came, and who discovered the high quality of iron sand in this district and began to engage in *tatara*-blowing. It has been variously suggested that these people were Tatars (largely because of the word "*tatara*"), Koreans (owing to the proximity of this district to Korea), and Orochons (on the strength of the Orochi myth). None of these conjectures merits much credence.

Whatever their origin the former existence of a number of iron-making groups in this region can be presumed from the presence of place names closely related to *tatara*-blowing and from abundant remains of simple, open-air, movable smelters in the neighborhood.<sup>5</sup> Such remains are today identifiable

<sup>5</sup>Remains of open-air smelters, new and old, large and small, are to be found everywhere in this area. In the neighborhood of Fube Village alone there are 32 such areas. The writer learned of 140 from the memory of an aged native on the Shimane slopes of Mt. Sentsū.

by piles of iron slag and special types of large trees. Slag piles often include discarded, unused pig-metal, and sometimes iron blocks as much as five feet in length. The trees exist as remnants of the devotion shown for the guardian deity when open-air smelters existed at that spot. Some of these trees are still preserved as objects of faith, being found with a sacred Shinto festoon wound around their trunks.

It is certain that the iron workers felt a sense of opposition to the farmers on the plains. The tradition that they were foreigners (immigrants) is cited as one origin of this antagonism. Whatever the origins of the iron workers, however, it seems probable that a feeling of opposition to the farmers might also have derived from the uniqueness of the iron-working occupation.

#### PHYSICAL PLANT

The exact date of the development of the smeltery from an open-air site to a permanent building is unknown. This change is believed to have occurred during the Muromachi period (14-16 centuries) or later. During the Tokugawa period (1603-1868) the blowing equipment was improved, a balance-type bellows coming to be used in place of the earlier foot-bellows. At about the same time, a large iron hammer called *dō* was invented for breaking up the iron blocks drawn from the furnace. Use of the balance bellows allowed the number of blowers to be reduced from eight to two, while the invention of the *dō* permitted production of iron blocks as large as 4000-5000 pounds at a single smelting. These technological advances resulted in the development of fixed smelteries of larger scale than had been possible previously.

An iron working establishment was divided into four parts: The iron-cut, where iron sand was extracted; the charcoal yard; the smelter; and the forge. In addition there was an organization for transporting raw materials, finished products, etc.

In the smelter, raw steel and raw pig were produced from iron sand and charcoal. In the forge, raw iron was made from pig. In recent times, the smelter and forge were usu-

ally adjacent, but in earlier days they were operated at some distance from each other. The smelter comprised a hammering shop, where iron blocks were broken up, a recrushing shop, where broken-up iron was recrushed and impurities were removed, and a furnace. The forge consisted of a shop where the pig iron was decarbonized and a finishing shop. Within the limits of the *sannai*, and around the buildings mentioned above, were a number of smaller structures: the head office, multiple dwellings for workers' families, a fuel warehouse, and a raw material yard.

The composition of the *sannai* group has varied at different periods. According to elderly informants, a small-scale *sannai* ordinarily included from 15 households of 40-50 persons to 30 households of 80-90 persons, and large-scale smelteries consisted of as many as 60-80 households numbering 150-200 individuals. Separated from the farm villages and, in many cases, located in mountain valleys, the *sannai* constituted independent communities. Wherever there were no natural boundaries to the *sannai*, fences or stockades were often erected. Each *sannai* had an entrance, with gateposts and doors, and a guard. *Sannai* were usually alongside mountain streams, which were diverted into the *sannai* for use in washing iron sand, for cooling iron blocks taken from the furnace, and for powering the water-wheel which operated the crushing hammer. The head office was located near the entrance, at a spot from which the gate and the smelter shop, the forge, and workers' residences could be observed. The workers' residences were built in clusters of two or three houses each, divided from one another on the basis of type of work. Key artisans and superintendents of unskilled laborers were given detached houses, but other families lived in multiple buildings. Around the buildings were gardens and groves. But most important, there was always a shrine of the guardian deity. This general layout of the *sannai* could still be observed in several places at the time of the writer's visit, and in one case all of the buildings described above still remained.

## SOCIAL SYSTEM

During the Tokugawa period iron smelteries in this district were, for the most part, administered directly, or supported and backed, by local feudal lords. Association with the feudal leaders aided the development of the smelteries. From the point of view of the feudal lords, the smelteries supplemented their revenues. In most cases, the lords received several types of taxes from smelteries and the bulk of their money income through the control of iron sales.

The smeltery owner, or *oyakata*, inherited his profession and property. Most of the *oyakata* believed themselves to be descendants of famous immigrants who led their factions into the area in the distant past. It was customary for an owner to have one or two smelteries, though in some cases a single family owned as many as six or seven.

The *sannai* group was composed of smelter and forge workers, clerks, and their families. This group was under the control and management of the *oyakata*. In addition, workers in the mine cuts, horse drivers, unskilled workers, and some of the charcoal burners were neighboring villagers employed part time and did not belong to the *sannai* group. This situation continued into the Meiji period, and, in some cases, as late as the mid-1920s.

The smeltery group was conceived of in terms of a simulated kin relationship between the *oyakata* and his followers. The workers identified themselves with the master's family, calling themselves, for example, "*Bokura ikke*" or "*Itohara ikke*" (members of the Bokura or Itohara family). Even today, in emergencies, old followers of ancient families assemble at their master's bidding. Most artisans and clerks held hereditary positions, their families belonging to the same smeltery generation after generation. It was assumed that they would serve their *oyakata* with great loyalty. However, even non-hereditary employees of the *sannai* group were expected to devote themselves to the *oyakata's* family, of which they considered themselves members. In work, as in other social intercourse, the life of the *sannai* was cooperative, bound by the mutual rela-

tionship of loyalty to a single *oyakata*. In addition to cash wages, they received a rice issue and the use of a residence and garden plot. In turn, the *oyakata* held the right of life and death over them and in effect was the sovereign of an extraterritorial district within the smeltery limits. Where a *oyakata* owned several smelteries at some distance from each other, the workers in each establishment made up a separate *sannai*.

Smeltery workers were classified into two main groups, artisans (*shokunin*) and clerks (*tedai*). The artisans of highest rank were the smeltery foremen, of which there were two (*murage* and *sumisaka*). They were assisted by about four firemen (*sumitaki*), who fed the furnace with charcoal, and from two to six balance-bellows operators (*bango*). In the recrushing shop, four or five (in large plants, as many as ten) artisans known as steel makers (*kanetsukuri*) worked. In the forge, there were two foremen (*daiku* and *sage*), from four to ten hammerers (*tego*) and two to six hand-bellows operators (*fukisashi*). In addition, there were often permanently employed charcoal workers and usually unskilled laborers, both categories overseen by one or two superintendents (*yamahai*). With the exception of one person designated to bring food to artisans at the furnace, women were not allowed to enter any shop where active work was being carried on. Commonly, work at the furnace continued for three or four nights at a time, during which workmen were not allowed to return to their homes.

Clerks acted as intermediaries between their *oyakata* and the artisans and took care of liaison with outsiders. There were six classes of clerks, ranging from apprentices through plain clerks, forge clerks, smelter clerks, accountants, and the manager. All clerks worked in the head office and at least one or two seem to have lived there. The manager was, in effect, the representative of the *oyakata* and, when the *oyakata* owned several smelteries, managers were sometimes called "*oyakata*" by the members of the *sannai* in their charge.

Among artisans, the foremen and superintendents had the highest status. The

*murage* in particular was highly regarded for his unique skill, and even the managers treated him as an equal. Legend has it that the guardian deity herself was a *murage* and the first to use the *tatara*-blowing method. This belief would seem to indicate that a charisma in considered to have been conferred upon the *murage*, whose symbol of authority is the "seed-plough" or shovel used to put iron sand into the furnace. It is reported that formerly, when a smeltery engaged a new *murage*, he was officially received by representatives of the smeltry at a mountain pass or at the boundary of the village within which the *sannai* lay. In recent times, the authority of the *murage* has diminished, but respect for his skill was still in evidence at the time of this survey. It was stated to the writer that, in general, the *murage* were pious, conservative and tended to dislike novelty in equipment, methods, etc.

The efficiency of the smeltery depended upon the ability of the *murage*. He alone was responsible for determining the suitability of the types of iron sand used in different stages of manufacture and for the erection and operation of the furnace. In consequence, *oyakata* tried to engage top-flight *murage*, and competition for the services of a good *murage* seems to have been common. As a rule, the skills were transmitted with hereditary status of the *murage*. However, in the event the *murage* had no sons, it was customary for him to take in ambitious and promising boys as apprentices. Normally, boys entered apprenticeship at the age of 16 or 17. The life of an apprentice was one of great hardship and, according to the report of one informant who had himself been a *murage*, eight out of ten apprentices failed to complete their training. The beginning of the apprenticeship was signalized in a mutual *sake*-drinking ceremony, after which the apprentice would call his senior "father" and treat him as if he were in fact his parent. An apprentice first worked for five or six years as a fireman. During this period he would study iron sand and the erection of the furnace, and at a later stage he would learn to judge the color of fire and to charge

the iron sand. Boys of lesser talent remained firemen for life, but those with ambition would often, in order to succeed in their course of training, isolate themselves in the main shrine of the guardian goddess at Hida Village and there fast and pray for days at a time. If his hardships were rewarded, the boy would be appointed *sumisaka*, the foreman with rank just below the *murage* and whose work was about the same at that of the *murage*. To become a regular *murage*, however, the *sumisaka* still required both more years of experience and good luck.

Similarly, the foreman of the finishing shop and the foreman of the decarbonizing shop were required to spend considerable time studying for their positions. As a rule, these positions were also inherited. In some cases known to the writer, the candidates for these positions were chosen not only on the basis of the father's occupation, but also after an apprenticeship of at least one year, to become a decarbonizing shop foreman, and three years, to become a finishing shop foreman. In all cases, artisans were promoted to these positions after having served sometime as hammerers. Not only the artisans but clerks as well followed the occupations of their fathers, and some families are known to have furnished clerks successively for five or six generations.

Upon hiring a new artisan or clerk, the *oyakata* paid the greatest attention to the occupation of the applicant's parents. The most important criterion was that the boy came from a *sannai* family. Boys from neighboring farm families were seldom taken in. It was considered most desirable, especially in the case of clerks, that the applicant's parents be members of the *oyakata's* own *sannai*, but it was not always possible to enforce this criterion in the case of artisans because of the high technical requirements of the job. In fact, it was quite common for the *oyakata* to try and tempt good artisans away from other *sannai* by making them better offers. Artisans would also take the initiative in seeking employment with an *oyakata* who was considered a good employer.

In most cases, artisans were hired on a ten-year contract, the *oyakata* paying a lump sum as an inducement to the new employee. The agreement was generally concluded orally and was not marked by the formality of mutual *sake*-drinking. Employees were free to look for work elsewhere once the contract was completed. In practice, however, most artisans stayed out the time of the contract, settled down in the *sannai*, and passed their occupation on to their children, in service to the same *oyakata*.

Other workers were not required to have such high qualifications as the key artisans, nor was there need to examine them too closely. Most balance-bellows operators and hammerers, for example, seem to have been wanderers or outlaws without registered domicile. Often employees are known to have absconded with their *oyakata's* property and gone to other *sannai* in search of work or refuge. The *sannai* were relatively tolerant of those seeking refuge from other *sannai*, but hunted out absconders from their own group with great severity. In the latter case, *sannai* would send letters to other *oyakata*, asking for the arrest of the absconders, but generally with little success.

The daily life within the *sannai* was surrounded by a host of restrictions. Individuals might not work at other occupations or move to other *sannai* without the *oyakata's* approval. Punishment for infractions took the form of scolding, whipping, confinement in the recrushing shop, and exile from the *sannai*. It is reported that in the old days such instruments of torture as handcuffs, fetters, and pillories were used, and in some cases ordeal by fire or water was demanded. In the Iyejima family, it has been reported, a clerk found guilty of counterfeiting money was crucified in the *sannai*.

In general, however, life in the *sannai* seems not to have been overly gloomy. The members of the group were, depending upon the *oyakata's* competence, etc., better off than farmers in the neighboring villages. They received relatively good care, adequate wages and rice rations for themselves and their families. Above all, artisans and clerks who were permanently attached received a

good income and a respected position, which in most cases seem to have made them grateful to their *oyakata*. Life in the *sannai* appears to have been fairly stable.

Furthermore, life in the *sannai* was based on a feeling of solidarity growing out of a common task. Though the specific jobs of the workers varied, they formed a group, not simply of neighbors, but of people united in their work. This sense of solidarity was greatly strengthened by the fact that many families in the *sannai* had been friendly for generations. In sum, the people of the *sannai* were unified by the following three factors: (1) succession to their parents' occupation, (2) service to the same *oyakata* family as their parents and (3) membership in families that had been friendly for generations.

Each *sannai* was governed by a special set of laws, applicable only within the limits of the *sannai* concerned, and based upon the house law or family constitution of the *oyakata*. These laws consisted of rules covering all aspects of life within the *sannai*. Born from a concern for the minute details of *sannai* life, they were "living laws." On a certain day each year the law was read to all *sannai* members. Though the contents of the law differed somewhat from *sannai* to *sannai*, in general all stressed the same major points. Some key examples of the provisions of these laws follow:

(1) Sales, loans and bribes: *Sake* found to have been sold illegally within the *sannai* could be confiscated and drunk by the person discovering the infraction. Money loans could not be effected without a supervisor's guarantee. Fines were levied against individuals found offering bribes to clerks or managers.

(2) Theft and gambling: The strictest punishments were meted out for the theft of the *oyakata's* tools and materials. Small scale gambling seems to have been looked upon as a permissible type of recreation, but large-scale gambling, when discovered, led to the punishment not only of the gamblers themselves but of all residents of the dwellings concerned. Informers were given, as a reward, all the money found in a gambling place.

(3) Drinking and amusement: Both *sake*-drinking and such amusements as singing and dancing were permitted within limits. However, all-night drinking bouts, singing, playing of the *samisen*,<sup>6</sup> and dancing while smelting was in process were strictly forbidden.

(4) Luxurious habits: In line with the general policy of the Tokugawa Shogunate prior to 1868, workers were prohibited from wearing clothing of silk or of luxurious design, and women were not permitted hair ornaments. Informing on spendthrifts was encouraged.

(5) Protection against fire: Fire regulations were extraordinarily strict. Workers were not allowed to smoke while working. At night, workers took turns acting as fire watchers, moving about and beating wooden clappers to show their vigilance.

(6) Sickness and burial: In case of severe illness the *oyakata* often visited the patient and paid medical fees out of his own pocket. The cost of burial was borne by the *oyakata*, *sannai* workmen cooperating in the ceremony. Members of the *sannai* were buried in a common graveyard belonging to the group.

(7) Holidays and festivals: The only holidays for the *sannai* were festival days when, in honor of the gods, work was suspended. On festival days all members of the *sannai* gathered at the head office and spent the day in eating and drinking at the *oyakata's* expense, in singing, and in other amusements. Usually, professional entertainers were brought in by the *oyakata*.

(8) Taboos: Taboo rules were associated with the belief in the guardian goddess. For example:

Workmen were not allowed to enter a house where a child had been born for 12 days after the birth.

The father of a newly born child could not enter the shops, especially the smelter, for 30 days after birth.

In general, women were not allowed to enter the smelter shop because it was believed that the guardian goddess would be jealous.

<sup>6</sup> A popular three-stringed instrument.

Wives of workers were prohibited from dyeing their teeth black on the first night of smelting. It was forbidden to cook or eat meat in the smelter shop.

The daily economic life of the *sannai* may be summarized as follows:

There were, of course, some differences in wage scales among the smelteries, but in general these were slight. One of the writer's informants gave the following sample daily wages for the Iyejima smelter during the period 1868-1890.

Clerks .....	4-6	sen <sup>7</sup>	
Superintendents .....	6	sen	
Key smelter blowing artisans	50	sen	plus 9-12 gō <sup>8</sup>
Finishing shop foremen .....	20	sen	of rice
Foremen of the decarbonizing shop .....	17.5	sen	

In addition to wages, rice was issued to workmen and their families. Two types of issue are to be distinguished: (1) a ration, the price of which was deductible from wages and (2) a free grant, which was given only to key artisans and clerks.

Besides these supplies, which were purchased by the *oyakata* either from neighboring farmers or from the stocks of tributary rice of the local feudal lord,<sup>9</sup> the *sannai* had attached to it gardens and groves where members could gather firewood and raise vegetables free. Garden plots were allotted to *sannai* families on the basis of the size of the family, without regard to differences of rank. Housing and work clothing were supplied by the *oyakata*. *Sannai* houses were normally 15 feet by 20 to 24 feet per family.

The daily economic life of the *sannai* was simple but stable, designed to permit artisans to devote themselves to their work without undue anxiety over their families' living conditions.

<sup>7</sup> A *sen* is one-hundredth of a *yen*, the standard Japanese currency, corresponding approximately to the American "cent" in meaning. Until the War, the *yen* fluctuated around an approximate value of \$ .20-\$ .25 (U.S.).

<sup>8</sup> 1 gō = .18 litre. This rice was given to workmen during overnight smelting operations.

<sup>9</sup> Persons cultivating land within the domain of a feudal lord were required to pay an annual tribute in kind, both as a form of rent and as an expression of allegiance.

THE UNITY OF FAITH OF THE *sannai*

It was in festival life that the essential unity of the *sannai* was most clearly expressed. The most important festival was that of *Kanayagosan*, the guardian goddess. The great feast day of the head shrine at Hida Village is best known, but in every *sannai* a festival participated in by the members of that *sannai* alone was held twice a year, in spring and fall, before the small shrine of the deity. Two points about the guardian deity deserve mention: (1) she was the guardian of an occupation, and especially of a technique; (2) she was the symbol of the group-consciousness of the iron making people. The *Kanayagosan* was conceived of as preserving and developing the iron making technique, and was therefore believed to be most particularly a protector of the artisans devoted to this technique. In a corner of every work building within the *sannai* there was a miniature shrine dedicated to the goddess. At the time of the writer's visit, older artisans were still worshipping at the shrine daily. It was explained that injury or insanity might result if they did not start their day's work in this manner.

Over and above this individual form of worship, however, it was customary for workers to have a meal together in the smelter and to worship the goddess when all preparations had been completed the night before the start of *tatara*-blowing operations. Normally, only artisans concerned in that particular smelting operation participated in the ceremony, under the direction of the *murage* as officiating priest. At the time of the first and seventh smelting operations each year, however, all workmen and clerks took part at the smelter in a purification ceremony officiated over by a Shinto priest of the district. The ceremony in connection with the seventh smelting was the most important. On this occasion holy wine and offerings were dedicated at the shrine in the furnace building; afterwards the *oyakata* furnished *sake* and food, which were consumed by the workmen in front of the goddess, while singing and playing games.

The purpose of this ceremony was to ensure that the iron be well smelted. If, in spite

of these precautions, the iron smelting did not go well, the head shrine of the goddess at Hida Village was visited and sacred salt<sup>10</sup> was received from the Abe family, who were the custodians of the shrine of the deity. Upon returning, the workmen mixed the sacred salt into the iron sand used in smelting.

In addition, once each year the head of the Abe family made a tour of all smelteries, giving out talismans and sacred salt, and receiving donations from the smelteries in return. His arrival was referred to as the arrival of the goddess *Kanayagosan* herself. It was believed that the longer he stayed the more prosperous the smeltery would be. This belief in the efficacy of the guardian deity was so deeply rooted that, according to an aged informant, difficulties in iron smelting were attributed to the goddess's displeasure.

As already noted, the *Kanayagosan* was a symbol of the consciousness of origin of the *sannai* members. This consciousness had, of course, become intertwined with the consciousness of a common occupation. In spite of many minor differences of work—and consequently of customary routine—among persons working in different parts of the smeltery operation, all workmen, including those of the forge, shared the same occupation and a tightly united life within the *sannai*. These experiences fostered a feeling of solidarity, a feeling that was reflected in their common faith and was reinforced periodically by their festivals. This faith was shown in their worship; and in all festivals, the object of worship was invariably the *Kanayagosan*. The Bellow Festival, for example, although held on a date sacred to the worship of *Inari*, the fox god, elsewhere in Japan, was here devoted to the goddess of smelting. In addition, one festival in the fall, usually on the 1st Day of the Rat (named after the first of the 12 zodiacal signs) in October, was given over to a festival of the *Kanayago* shrine in each *sannai*. On this occasion, all members of the *sannai* gathered at the shrine, made offerings of

<sup>10</sup> In Japanese life in general, salt is considered to be a purifying agent.

wine and food, prayed for the prosperity of the *sannai*, and drank and feasted at the head office, diverting themselves with song and dance.

In short, the sense of union among members of the same occupational group was continually reinforced in the worship of the guardian deity.

#### INSIDERS AND OUTSIDERS

In opposition to the *sannai*, neighboring farm villages were called *jige* (outside). The relation between these two entities is of some interest. That the *sannai* was a closed and isolated group opposed to the "outside," is clear from the following three facts:

(1) The "outsiders" were not allowed to live within the *sannai*. Most *sannai* artisans were normally not members of neighboring communities, or if they were, they were not considered to be regular members. It is true that unskilled and common laborers were often recruited from neighboring villages, but they were normally part-time workers, and such extra employees were not permitted to live within the *sannai*. Members of the *sannai* were required to observe strict regulations in their relations with outsiders when they had occasion to go outside of the *sannai* limits. These regulations were imposed in order to prevent unnecessary frictions.

(2) Work within the *sannai* was hereditary. As a consequence, outsiders could not become regular artisans. For example, foremen of the forge within the *sannai* and ordinary smiths in neighboring villages came from entirely different lineages, and there was no way by which members of the one could enter apprenticeship under or take lessons from a member of the other.

(3) Marriage between members and outsiders was originally very difficult. However, it should be noted that as the smeltery settled down more or less permanently in a given area, this custom tended to break down to some extent. It seems likely that members of the *sannai* were motivated primarily by two factors in their avoidance of contacts with outsiders. One was, of course, their desire to preserve order within the *sannai*. More important, however, was a kind

of taboo-psychology in consequence of which the entrance of outsiders was felt to endanger the state of purification of the *sannai*. In any event, because marriage was generally avoided, the genetic purity of the residents of the *sannai* was preserved to a considerable extent.

Fundamentally, the barriers to relations between the *sannai* and the outside seem to be attributable to the social and psychological distance resulting from occupational differences. These differences manifest themselves in the differential mutual evaluation of the *sannai* people and the neighboring farmers. The latter considered the iron workers to be their inferiors, a "lower order" of humanity, even though the iron industry itself was highly regarded. On the other hand, the *sannai* people considered their smelteries to be none other than the "sacred land" of the guardian deity protectress.

In spite of the many differences between the iron workers and the farmers, there was a fairly elaborate system of economic interdependence between them. Many of the iron sand deposits which supplied the smelteries were owned by the farmers and were usually worked by them. In addition, much of the charcoal used in iron smelting was made by the outsiders even when, as was common, the forest from which charcoal wood was taken was the property of the smeltery owner. Horse-drivers were normally farmers, as were the extra unskilled laborers. Finally, the very existence of a smeltery in the district increased the value of the surrounding lands. For all of these reasons, the outsiders profited considerably from the activities of the *sannai*, and though they might look down upon the *sannai* people, there are many cases on record where farming villages took great pains to encourage the erection of smelteries in their district.

In summary, the mutual prejudice whereby the *sannai* closed its doors to outsiders, while the latter themselves were often in opposition to it, derived primarily from a difference of occupation. On the other hand, *sannai* and outsiders stood in a relation of economic interdependence. In earlier days, it seems probable that the element of op-

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position may have predominated. In recent years, however, parallel with the decay of the smelting industry, this antagonism appears to have declined. Since the first decade of this century, smelteries in this district have languished, except for a brief renaissance at the end of World War I. The ten years from 1924 to 1933 was a blank period

in the history of the smelting industry; during this time the *tatara* fire went out and the *sannai* people were scattered. By the time of the writer's visit, though some smelteries had been rehabilitated, the *sannai*, as a group unified through faith, had almost vanished, and the consciousness of the *sannai* versus *jige* had very nearly died out.

## SOCIAL STRATIFICATION AND MOBILITY PATTERNS\*

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THIS is a paper on certain aspects of the general theory of social stratification with special reference to status and mobility in American society. Working hypotheses are embodied in the paper and some are reinforced by brief summaries of selected research findings.<sup>1</sup> Particular attention is paid to the structural-functional variables<sup>2</sup> necessary for the comparative study of contemporary communities. Most of the structural phenomena may be ordered within a frame of reference which has key, interrelated variables for analysis of the contexts of human behavior. The framework is a starting point for the functional or dynamic analysis of the major processes that appear to be operating. To illustrate this, a functional aspect of stratification is demonstrated in terms of patterns of mobility behavior.

From a theoretical point of view, social stratification is a special case of principles of

inclusion and exclusion which characterize systems of human behavior. Two other structural elements, age and sex, are based upon visible biological distinctions. Patterned expectations according to age-grade and generalized social-sex role have predictable influences upon the behavior of individuals and upon their shared idea-systems. A third principle, that of segmentation or the status-ranking with which we are concerned, appears to order both distant and intimate social relationships. Experience in the resultant social matrix through time seems to affect the personality make-up of people, especially their preferred perceptions and relatively enduring value-attitudes. Finally, among people of similar status or between groupings at several status levels, there may be discrepant definitions of the situation where interest operates as a principle of inclusion or exclusion. The seeking efforts of individuals changing status and of competing interest groups have a mobile character.<sup>3</sup>

Only selected phases of such segmentation phenomena focussing upon status-mobility theory can be discussed within the limits of a paper. My first step is to clarify current misunderstandings about the social class concept.<sup>4</sup>

\*Paper read at the annual meeting of the American Sociological Society held in New York, December 28-30, 1949.

<sup>1</sup>My assignment is to make particular reference to the team research of W. Lloyd Warner and our associates in the so-called "Chicago group." The reader may detect consideration of the theory and findings of others whose work has not been cited.

<sup>2</sup>The search for variables (and their values) fitting a structural-functional theory parallels the approach of Talcott Parsons in, for example, "The Present Position and Prospects of Systematic Theory in Sociology," *Essays in Sociological Theory: Pure and Applied*, Glencoe, Ill.: The Free Press, 1949, pp. 17-41.

<sup>3</sup>Social mobility, change of status, is a neglected dimension in many otherwise brilliant analyses; for example, Herbert Blumer, "Sociological Theory in Industrial Relations," *American Sociological Review*, XII (June, 1947), 271-278.

<sup>4</sup>The term "social class" as employed in American research has a certain equivalence to the term

# SOCIAL CLASS REALITY AND SCIENTIFIC CONSTRUCTS

Social class is a reality of American social stratification if the primary data of contemporary community studies are to have any meaning. Persons and families act and react toward one another as equals, superiors, and inferiors within the contexts of community behavior. Men and women, young and old, talk of themselves or their families in relation to other persons and their folks in a frame of reference characterized by rank. Just as in England, Canada, and other complex societies, there are valued symbols of status which one may have or achieve. Americans—and people all over the world—not only refer to their own relative position, either directly or indirectly, but also they “place” others in terms of differentially valued symbols and commonly understood levels of social participation and moral reputation. These persistent differentiations (and the way people behave in accord with them) form a crucial element of social class—a key concept in understanding American status-structure.

The essential reality of social class (the entity) is such that it can be approximated in a scientific manner. The descriptive categories used by Warner and his associates<sup>5</sup> are known to most social scientists and often are employed by laymen. The terms “lower class,” “middle class,” “upper class,” and their subdivisions have definite referents in the minds of many persons as well as commonly-accepted meanings. These social class categories have been employed in our study of Jonesville and other communities as values of a major variable in the analyses of their structure.<sup>6</sup> Jonesville, for instance, is typical in the sense that all of the interrelated status-

mobility variables are present. The exact values of each variable for Jonesville are not necessarily the same as for any other community whether it be a country unit, the small town, a middle-sized city, or the varied and sometimes superimposed communities of a modern metropolis.<sup>7</sup>

Clarification of concepts usually moves from description and classification to the derivation of indices which enable the scientist to manipulate and assign meaningful values to the variables being studied. This has taken place in stratification research. The *index of status characteristics* is a construct, a product of multiple regression analysis.<sup>8</sup> Warner's I.S.C. attempts to approximate, with a minimum of error, the ascribed (or achieved) and very real *social class status* of a person or a whole family.<sup>9</sup> The intervening operation has been to obtain the *evaluated participation* of people in a “blue ribbon sample” to establish the index. Instead of Warner's E.P. technique as an intervening operation, some class analysts prefer to employ “prestige judges” and rating procedures.<sup>10</sup> Others start with the

in Jonesville, New York: Harper & Bros., 1949. The book is a product of team research under the auspices of the Committee on Human Development at the University of Chicago.

<sup>5</sup> Team research, lending credence to this proposition, has extended over the several kinds of communities. Some investigations have been reported; others are still in process. Tentative findings suggest emphasis upon variation among common variables in “city,” “town,” and “country,” and avoidance of an explicit “rural-urban” dichotomy.

<sup>6</sup> W. Lloyd Warner, Marchia Meeker, and Kenneth Eells, *Social Class in America*, Chicago: Science Research Associates, 1949.

<sup>7</sup> The Warner I.S.C. is computed from ratings on scales for (i) occupation, (ii) source of income, (iii) area lived in, and (iv) house type. Alternate scales (suited to various purposes and situations where different kinds of information are available) are being developed for education attained, religious affiliation, and to correct for ethnicity. These scales are used to modify or replace certain components in the original Warner index.

<sup>8</sup> For instance, August B. Hollingshead, *Elm-town's Youth*, New York: John Wiley & Sons, 1949, pp. 25-41. The Hollingshead procedure in the same community separates out the same five classes as the Warner technique with close case by case

“social status” (or “stratum” stand) used by Max Weber, *The Theory of Social and Economic Organization*, New York: Oxford University Press, 1947, pp. 428-429.

<sup>9</sup> For example, W. Lloyd Warner and Paul S. Lunt, *The Social Life of a Modern Community*, New Haven: Yale University Press, 1941; Allison Davis, Burleigh B. Gardner and Mary R. Gardner, *Deep South*, Chicago: University of Chicago Press, 1941.

<sup>10</sup> W. Lloyd Warner and Associates, *Democracy*

quantification of variates believed to define status, making the assumption that social status is what their test or technique measures.<sup>11</sup> Either of the first two procedures would seem to be acceptable in status analysis but the last is questionable on obvious grounds.<sup>12</sup>

A fundamental notion of reciprocal relations among stratification theory, empirical data, and methods of study has been illustrated with reference to the social class concept. It is an analytical element<sup>13</sup>—a variable which represents emergent properties of individuals or of social groupings within complex systems of motivated human behavior. Coping with actual data forces the social scientist to clarify and recast his theoretical ideas. Moving from descriptive categories of status reality to observable indices, by successive approximations, results in constructs which enable him to employ the variable economically in various kinds of research.

#### COMMUNITY STATUS-STRUCTURE

Social class is only one of a number of interdependent variables involved in status-mobility theory and investigation. A schematic diagram (figure 1) shows values of the social class variable and how they fit with other analytical elements in community

agreement on an overlap of families in the two studies.

<sup>11</sup>For example, F. Stuart Chapin, *The Measurement of Social Status by the Use of the Social Status Scale*, Minneapolis: University of Minnesota, 1933; Harrison G. Gough, "A Short Social Status Inventory," *Journal Educational Psychology*, XL (Jan. 1949), 52-56.

<sup>12</sup>Proposals to employ either the Alba Edwards or N.O.R.C. occupational classifications also are questionable. First, Warner's scale for "occupation" has several levels for each kind of occupational category found in either set of classifications. Second, the high correlation in the Warner study between "occupation" and "social-class placement for Old Americans" is for a "blue ribbon" sample. In random samples, the "occupation" component only accounts for about half of the variation. Hence it is wiser to use a multiple component index wherein the several scales correct for one another.

<sup>13</sup>The term is elaborated in Talcott Parsons, *The Structure of Social Action*, New York: McGraw-Hill, 1937, pp. 34-35, 616-624, 738-752.

status-structure. A majority of present-day communities have all of the structural, class, ethnic, and color caste elements of the "ideal type" chart.<sup>14</sup> Some will lack an upper, or even an upper-middle class. Although informants often talk of certain families within a community as "society," the ones referred to may have "middle class goal structures" (to use the Kluckhohn phrase) rather than the class orientations and shared beliefs and values of the general American upper class. Other localities, especially certain suburbs of large cities, will have a relatively small lower class population. Again, places like Jonesville have very few members of a subordinated caste-like, dark-skinned segment. The actual ethnic or minority groupings differ from community to community. These variations make the conceptualization valuable for they facilitate both comparative and intensive analysis.

The schematic diagram depicts seven social structures or systems of social relations.<sup>15</sup> The family is a basic social unit. It is a person's family (of orientation) that identifies him as being affiliated initially with a status and a culture pattern. The informal associations (social cliques, street-corner gangs, etc.) and the formal organizations (for instance, Rotary or the P.T.A.) are recurrent contexts of behavior. Being a structured situation, a formal organization permits its members to have contacts with people of various class positions without the necessity of intimacy. Acceptance within relatively unstructured informal associations is the crux of status reputation.<sup>16</sup>

<sup>14</sup>At least three kinds of class culture patterns or shared value-attitude systems also may be present: upper (ego-oriented?), middle (superego-oriented?), and lower (impulse-oriented?). Class orientation of a person or family does not necessarily coincide with status reputation or participation, nor with socioeconomic position. This, as we shall see, is a fundamental set of discrepancies underlying mobility patterns in American society.

<sup>15</sup>To conserve space, material in the original draft of the paper dealing with the several social structures has been omitted.

<sup>16</sup>When new families come to a community, tentative appraisals are made. Variations of the following questions are asked: What do you do? Where do you work? Where do you live? Who lives

The other four social structures are the basic situational institutions, outside of the family, influencing status and role (the functional aspect of status). The political, economic, religious, and educational institutions are relatively separate but interdependent

tions, people tend to think of their roles in business, in government, in the church, and with regard to education, as somewhat separated identities. In America, we feel that democracy is threatened when persons or "interest groups" within one of the vertical

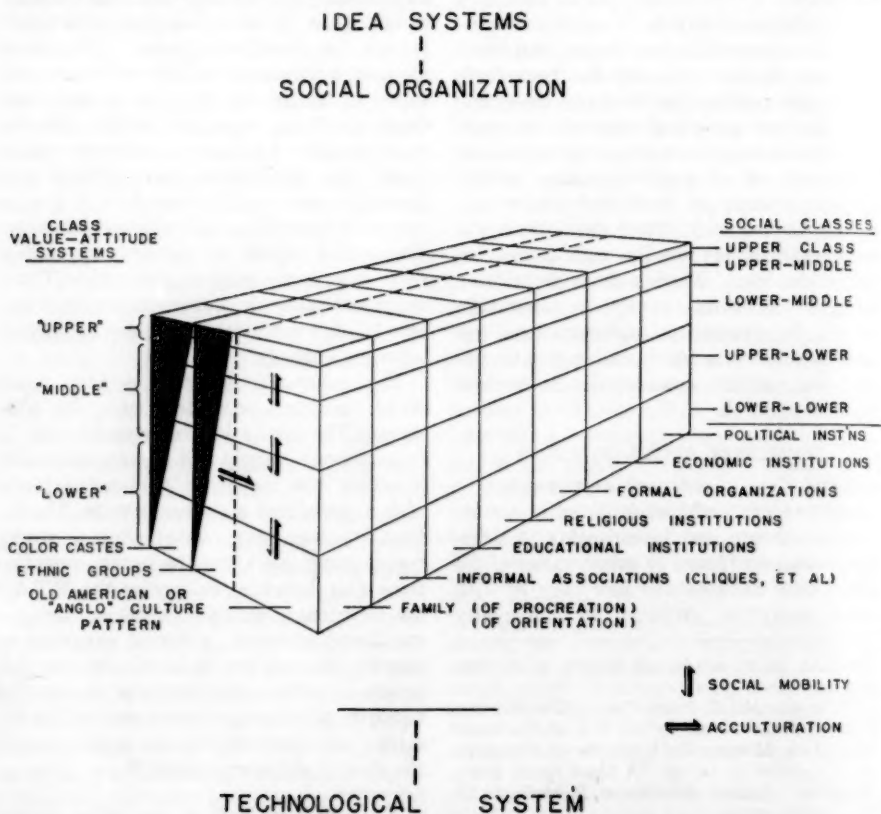


FIG. 1. Schematic Diagram of Community Status-Structure.

status hierarchies. No matter how similar their behavior may be in the several situa-

near there? What is your church? Where did you go to school? The index of status characteristics is, in a sense, a set of scales which appraise answers to such questions. There are "errors of placement" because the critical test of status reputation is membership in and reference to formal and informal associations, or the lack of such affiliation (including potential family interaction).

hierarchies attain "too much power." Differential attitudes within communities and in the total society toward "boss rule," "big business," and "government control" are cases in point. Among people at relatively the same status level and within an institutional pattern (for instance, between "management" and "top labor leaders"), the conflict of interests assumes paramount importance. One means of achieving status,

of becoming socially mobile, is by activity within and on behalf of an interest grouping.

Understanding of structure or a pattern of contexts permits conceptualization of function or sets of processes which constantly are operating or which intrude under certain conditions. The schematic diagram conveys the loci of changes involved in two of the processes associated with stratification. Movement vertically from one class to another—up or down, and usually at uneven rates among the seven structures—is social mobility.<sup>17</sup> Movement across from an ethnic to the "old American" (or "Anglo") culture pattern is acculturation (or assimilation). Both social mobility and acculturation are assessed ultimately in terms of variations from the original family status.<sup>18</sup> Acculturation often is followed by upward or downward mobility. In studying these processes, the diagram merely guides the investigator. He is reminded to look for movement in the several contexts, for the acquisition of status symbols (including residence), and for changes in social behavior and underlying value-attitudes.

#### MOTIONS OF STATUS AND MOBILITY

The problems of theory and research with regard to social mobility as a functional aspect of stratification phenomena are clarified somewhat when at least three notions of status are considered. First, inherent in the social organization, there is *social class* status. This marks the beginning and the end of mobility. Second, *socioeconomic* dis-

crepancies clearly are observable. Occupation and income are important elements of social position, provided wealth is translated into appropriate symbols of status-rank and accompanied by acceptable behavior in the several community contexts. Education opens up opportunities and sets limits upon socioeconomic status. The tendency to classify by socioeconomic status, an external attribute, does not seem as great a contradiction of the American cultural belief that "all men are equal" as does differentiation by total life style—social class. Finally, class culture patterns or shared *value-attitudes* partially segment the American idea system, at least, into two competing (upper and middle class) and one alternative (lower class) cultural orientations.

The several social classes have evolved, through time and with regional variations, typical modes of behavior accompanied by characteristic beliefs and sentiments. From the Jonesville and other data, it would appear that shared class value-attitudes underlie these observable differences. As attitudes are learned within the family, among age-mates, and in community contexts (largely through reality testing, imitative identification, and insight with subsequent introjection), preferred class-typed meanings as well as symbols are attached to them. During childhood and adolescence, social learning at home, among same-age friends, and in school and church is oriented to a way of life. Given an opportunity to affiliate with youth from the "better" family backgrounds, lower status young people can and do learn much of the "higher" life style. The private as well as the shared value-attitudes of the upwardly mobile person are, in many respects, much like people in a social class above him.<sup>19</sup> By and large, the climbing, striving, clinging, or declining behavior of the mobile person is a function of discrepancies among social class, socioeconomic, and value-attitude attributes which may be regarded as variables. The discrepancies, in

<sup>17</sup> The term, "social mobility," is defined as "transition of an individual from one social position to another" by Pitirim A. Sorokin, *Social Mobility*, New York: Harper & Bros., 1927. Population mobility enters into consideration only insofar as in- and out-migration of people among communities facilitates their social mobility.

<sup>18</sup> Means of appraising social mobility and assessing acculturation from case data have been worked out by Martin Loeb; cf. Jurgen Ruesch *et al*, *Chronic Disease and Psychological Invalidism*, Psychosomatic Medicine Monographs, New York (Paul Hoeber), 1946, pp. 102-124; Jurgen Ruesch *et al*, *Acculturation and Illness*, Psychological Monograph No. 292, Washington (A.P.A.), 1948, pp. 1-40.

<sup>19</sup> The evidence for these general statements and an analysis of the processes involved will appear in later reports of the research.

a sense, are indices of internal and external forces pressing upon the mobile individual.

It would appear that there are dynamic processes in the American social structure which operate to forge persevering, motivating, guiding aspects of individual personality. Variations in overt and covert behavior are related intimately to status situation and mobile or conforming behavior. The overt, social aspects of *mobility orientation* are recognized, either directly or

These categories have been adopted as tentative values of mobility orientation, an analytical element in exploratory studies of mobility patterns.

#### SOCIAL MOBILITY IN AMERICAN SOCIETY

Social mobility is a process which has meaning only in stratified contexts. From both the social and the psychological point of view, generalized mobility orientations are a function of a situation wherein there is a

TABLE I. PER CENT OF SOCIAL MOBILITY IN AMERICAN SOCIETY BY STATUS\*

Social Class	Population Distribution by Status	Population by net rate of Reproduction	Net Social Mobility Required	Per Cent of Mobility from Status below
Upper Class.....	3.0	2.5	+ 0.5	+ 7.7
Upper-Middle.....	9.0	6.5	+ 3.0	+10.7
Lower-Middle.....	36.0	28.0	+11.0	+28.2
Upper-Lower.....	35.0	39.0	+ 7.0	+29.1
Lower-Lower.....	17.0	24.0	—	—
Totals.....	100.0	100.0	+21.5	—

\* Space does not permit explanation of the methods of social mathematics, of the relative reproduction rates employed, or of the projection of trends which indicate an increasing middle class segment in American society. Similar tables have been calculated independently by Robert J. Havighurst.

To comprehend the table, the figure "+3.0" mobile to upper-middle in the third column is the difference between "9.0" in column 1 and the "6.0" left in column 2 when "+0.5" per cent of a generation move into upper class. The fourth column indicates the per cent of young people in the social class just below (or others from farther down) who will have to move up in class status to maintain the composition of the American status-structure.

indirectly, when people are encouraged to talk about one another.

*Climber*: "He's really getting along in the world." "Oh! She made a good marriage and finally got out of that mess at home."

*Strainer*: "He's really trying to get ahead—but I don't think he's got what it takes." "She's doing her best to get in. . ."

*Static* (non-mobile): "Like father, like son." "She's a nice, quiet person like her mother." "He'll follow in his father's footsteps." "She's not much interested in things—stays at home."

*Clinger*: "He's trying to follow in his father's footsteps but he's not doing so well." "Her folks didn't leave much—she's going to have a hard time." "They're just managing to hang on."

*Decliner*: "Just a backslider." "She dropped out of things—we never see her anymore." "The family's hit the skids—the kids are delinquent." "Maladjusted." "Alcoholic."

status system in the social organization and an "American Dream" in the idea system. The "American Dream" says in part that everyone has "the right to succeed" and that each should do his best "to reach the top." Is this theme in accord with the realities of American social stratification? Is there a pattern of mobility and conformity? How much social mobility actually occurs?

Provisional answers to these questions may be derived in two ways. First, it is possible to work out a set of estimates for the total American society based upon census data. Second, in the Jonesville research, 300 young people have been studied through the teens to adulthood and patterns of mobility and conformity are clearly evident.<sup>20</sup> For

\* The samples include nearly all persons in Jonesville town and Abraham county born in two

what it is worth, the estimate and the sampling study appear to corroborate one another.

The estimates of Table 1 have been obtained by employing "social mathematics" and collating census data in terms of indices of status. In this manner it is possible to approximate the social class distribution of the population for a particular period. The class reproduction rates vary in such a way that more than sixty per cent of all children are born into lower class families. Hence, a balance of upward mobility is required to maintain the overall status-structure. Insofar as the table is a good estimate, it would seem

to that for Table 1. The net upward mobility "required" takes the same form as the estimated mobility pattern for the total society. Since there seems to be about five per cent downward mobility, and each person who drops in status has to be replaced, the estimate and the sample data indicate that total upward mobility in American society is approximately twenty-five per cent of each generation.

The tables would suggest a working hypothesis that the proportion of social mobility is much greater from lower class family backgrounds. To sharpen the focus, twin propositions might be stated about the

TABLE 2. PER CENT OF SOCIAL MOBILITY "REQUIRED" AMONG 300 MEMBERS OF TWO AGE-GROUPS OF JONESVILLE YOUTH

Social Class	Distribution by Status (Jonesville)	Age-Groups by Family Status	Net Social Mobility Required	Per Cent of Mobility from Status below
Upper Class.....	2.8	1.0	+ 1.8	+31.5*
Upper-Middle.....	7.9	5.7	+ 4.0	+13.7
Lower-Middle.....	35.1	29.0	+10.1	+21.4
Upper-Lower.....	41.2	47.3	+ 4.0	+23.5
Lower-Lower.....	13.0	17.0	—	—
Totals.....	100.0	100.0	+19.9	—

\* At the upper class level, where small numbers are concerned, there are fluctuations according to the community and age-group studied.

that at least twenty per cent of the American population moves upward in social class status each generation,

These estimates may be compared with data from the Jonesville research where family social background and present adult status of the 300 young people are known. For our present purposes, differences between the distribution of all Jonesville families by status and the distribution of youth born into the two age-groups by status permit a calculation of "net social mobility required." In Table 2, although Jonesville has a relatively greater proportion of people in upper-lower class, the pattern of figures is similar

separate years of the 1920's. Among the 300, including 143 males and 157 females, are those who left Jonesville for higher education and those who migrated elsewhere in later youth and adulthood.

function of education in a complex, stratified society.

- (1) The function of the public schools is to make certain that only a minimum number of young people from middle class homes decline in status and, at the same time, to recruit the necessary proportion of youth from lower class families into a middle class way of life or—at least—into assuming responsibilities for productive work and conforming citizenship.
- (2) The function of higher education is to make certain that only a minimum number of young people from upper-middle and upper class homes decline in status and, at the same time, to recruit "promising" youth from lower-middle and lower class backgrounds into an upper-middle class way of life or—at least—into being informed, contributing citizens.

In a sense, these statements are calculated to provoke controversy. This is so because the beliefs and idea systems of the culture ("what ought to be") tend to vary somewhat from the realities in the interaction systems of American society ("what really is"). Nevertheless, these twin propositions would seem to express precisely what we are requiring of our educational system. Variations on the same theme underly present concerns about "the American family."<sup>21</sup>

by emotional and ideological blocks in our perception.<sup>22</sup>

Mobility patterns already are evident among members of the two Jonesville age-groups studied. Table 3 has been constructed to show variations from the original family social class status compared with the index of adult status achieved by these young men and women upon their transition to the adult world.<sup>23</sup> It indicates the number and per cent of upward mobile behavior, of those con-

TABLE 3. FAMILY SOCIAL CLASS AND INITIAL ADULT STATUS IN TWO AGE-GROUPS

Initial Adult Status	Social Class of Family					Total	Per Cent
	LL	UL	LM	UM	U		
Upper Class.....	—	—	—	1	3	4	1.3
Upper-Middle.....	—	4	19	15	—	38	12.7
Lower-Middle.....	2	33	63	1	—	99	33.0
Upper-Lower.....	11	97	3	—	—	111	47.0
Lower-Lower.....	38	8	2	—	—	48	16.0
Total.....	51	142	87	17	3	300	
Per Cent.....	17.0	47.3	29.0	5.7	1.0		100.0

Per Cent of Mobile and Conforming Behavior							
Upward social mobility.....	25.5	26.0	20.8	5.9	—	(70)	23.3
Non-mobile or conforming.....	74.5	68.4	73.5	88.2	100.0	(216)	72.1
Downward social mobility.....	—	5.6	5.7	5.9	—	(14)	4.6
Net upward mobility.....	25.5	20.4	15.1	—	—	(56)	18.7*

\* Since initial adult status is measured, in part, by early adult occupation and source of income, young people who later improve their socioeconomic status will not be included in this approximation of incipient net upward mobility.

Perhaps community agencies and programs of mental hygiene, social welfare, and so forth, are set up (in reality) to control mobility patterns. Some of the propositions that could be made would be obvious were it not for the fact reality often is clouded

forming to family status, and of persons who may be or who actually are moving downward. Most of those moving upward are climbers in mobility orientation but a number of strainers (psychologically speaking) are included. By and large, the non-mobile are static persons but some would be classi-

<sup>21</sup> Probably there is no such entity as "the American family." Structurally, the lower class family is "extended," the middle class "immediate," and the upper class family is "interconnected." Functionally, the family orientation may be "conforming" in terms of the class-typed value-attitudes of both parents, or "mobile" when emphasis is upon climbing behavior, or "divergent" when father and mother vary in terms of preferred culture patterns and status affiliations.

<sup>22</sup> A case for examining supposedly obvious facts is made by Gustav Ichheiser, "Misunderstandings in Human Relations: A Study in False Social Perception," *American Journal of Sociology*, LV (Sept. 1949), Part 2, 1-70.

<sup>23</sup> The index of initial adult status is a tentatively validated construct derived from scales for (i) subject's occupation, (ii) source of income, (iii) education attained, and (iv) religious affiliation.

fied as strainers or clingers. Some of the downward mobile have been categorized as decliners but others appear to be clingers. Mobility into the upper-middle and upper classes does take time to establish the necessary socioeconomic base as well as social participation and status reputation. Hence some of the incipient upper-middle class persons, especially the strainers, actually will fail in their attempt to achieve that status. On the other hand, there is reason to believe that more than one upper-middle class individual eventually will attain upper class status and that the proportion moving from lower to lower-middle class will be greater than shown in the table. For instance, some of the young men from lower class homes with a high school education are learning skilled trades which eventually should support a "good" middle class home, providing they make the "right" marriage.

These mobility patterns are manifest functions (objective consequences)<sup>24</sup> of discernible processes which operate in the total American status-structure. The alternative patterns appear, in part, as resultants of differential social (as well as intellectual and emotional) learning within specific community contexts. Paralleling the patterns, there are personal motivations which have been termed mobility orientations—climber, strainer, static, clinger, and decliner. Since motive and function are independent variables, persons of climber mobility orientation do not necessarily constitute all of those who succeed in an upward mobility pattern. The latent function (generally unrecognized consequences) of mobility patterns is the occurrence of discrepancies between individual orientations and places in the status-structure which contribute to maladjustment, neurotic behavior, or compensatory action.

The realities of the American stratification system allow a substantial proportion of the population to live in accord with the "American Dream." At least the proposition seems to be in accord with the available data. The

"room at the top" appears to be a result of not less than three phenomena. First, there is a differential birth rate, with the lower class families producing relatively more children than families of social classes above. Second, there has been a long term shift in social structure, with "places" for more middle class people (accompanied by an increasing demand for secondary and higher education). Third, there is the downward mobility of some persons in each generation. Paralleling these phenomena of American stratification, there is the "push" of the ideology toward cultural attainment and a "higher" way of life (usually coupled with increasing productivity in the technological system).

However, all of this could be changed. If the class birth rates were equalized, if the structure were to become static, or if declining behavior were checked completely by therapy and other measures, we might expect upward mobility to decrease sharply. The dynamic processes now at work in American society no longer would operate. The "open class" stratification and the mobility patterns of our society would tend to disappear.

#### RESEARCH FRONTIERS IN SOCIAL STRATIFICATION

What has been said in this paper tends to verify Merton's propositions about the bearing of research upon theory and further study.<sup>25</sup> Many unanticipated data have been encountered not only in the Jonesville study but also in a wide range of other situations. Each member of the several research teams has had to revise both his personal and shared theories to "make sense" of the findings. The result has been a refocussing of varied research interests as well as a recasting of theory and working hypotheses. The original investigation of community structure in terms of stratification has led to concern about social learning and related processes

<sup>24</sup> Robert K. Merton, "Manifest and Latent Functions," *Social Theory and Social Structure*, Glencoe, Ill.: The Free Press, 1949, pp. 21-31.

<sup>25</sup> Robert K. Merton, "The Bearing of Empirical Research Upon the Development of Social Theory," *American Sociological Review*, VIII (Oct., 1943), 505-515.

in such contexts. Experimentation with thematic and sociometric analyses as well as focused interview and free response techniques have thrown some light upon the manner in which context and process function in personality formation. The variables in status-structure and in learning processes are interconnected somehow with such analytical elements as mobility orientation and with such objective consequences as mobility patterns in the total society and within particular communities. Successive approximations of information, for instance, on social class distinctions, have resulted in indices which have permitted us to clarify the nature of and the relations among the several kinds of concepts.

The schematic diagram of status-structure is merely a graphic presentation of a paradigm which relates some of the major variables involved in stratification and mobility theory. The "structural" variables in this social matrix could be valuable (i) in comparing the social organization and idea systems of communities, (ii) in identifying populations for comparative and intensive sampling studies, and (iii) in dovetailing findings about phenomena and their functions in the various contexts. There is a pressing need for valid and observable indices to permit sophisticated research of this kind.

Mobility and acculturation are only two examples of multidimensional dynamic processes which involve sub-processes (for ex-

ample, perception and learning) as well as motivational components and functional outcomes. The whole area of mobility patterns as they function in American society is almost a virgin field for social as well as psychological analysis. Studies to date, by and large, are in terms of unit changes such as shifts in occupation. The Warner index and others to be developed should assist social scientists in research which considers emergent attributes of individuals in dynamic systems. For instance, this paper has presented some evidence that a social-psychological variable—mobility orientation—may be useful in further studies.

The many facets of status-mobility phenomena and their place in social theory should not be underestimated. The manner in which individuals of different mobility orientations, young and old, succeed or fail in fitting their aspirations and behavior into the several available mobility and conformity patterns is a crucial element in the operation of the social system and in personal well-being. Social scientists now have some of the necessary variables for the identification of sample populations and the required techniques for studying conformity and mobility within the status-structure. A further step is the interpretation of alternative modes of behavior and underlying value-attitudes in terms of structural contexts, variations in process and ends-in-view, and functional consequences for the individual and his society.

## A CRITICAL EVALUATION OF WARNER'S WORK IN COMMUNITY STRATIFICATION

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APPROXIMATELY two decades ago W. L. Warner and his associates went into "Yankee City" to apply the methods of social anthropology to the study of a modern community. In the interim, numerous researches of the Warner school have been reported. With the recent appearance of *Social Class in America*,<sup>1</sup> which purports to clarify the research operations and theoretical position of the group, along with a substantive volume<sup>2</sup> concerning the latest town studied in this tradition, a re-examination of the Warner group's objectives, methods and results is in order.

Previous articles and reviews have evaluated specific researches of this prolific school.<sup>3</sup> This paper raises questions about the endeavor as a whole, particularly the treatment of social stratification, which has been the central problem in all of the studies. The first question we wish to raise is that of the *relevance* of the work of Warner and his associates to the objectives they have set themselves. Second, we wish to consider the reliability, validity, and pertinence of their methodological operations. And finally, we

propose to assess the adequacy of their conceptual formulations, in terms of the significance and implications of the questions they have asked of the data.

### ON THE OBJECTIVES OF THE WARNER RESEARCHES

Warner has described the *Yankee City Series* as a "practical attempt to use the techniques and ideas which have been developed by social anthropologists in primitive society in order to obtain a more accurate understanding of an American community."<sup>4</sup> The ultimate success of the venture would seem to rest on the validity of the explicit assumption that studies of preliterate communities are a prerequisite for the understanding of modern communities, and the implicit assumption that the methods employed to study the former are equally applicable to the latter. But this program did not only aspire to an enrichment of the methodology of community analysis and the multiplication of discrete monographic studies. Rather it was conceived as providing a basis for substantive *generalizations* of two kinds. In the first place, Warner looked toward a "comparative sociology" of a sort made familiar by the work of Hobhouse, Wheeler, and Ginsberg. Thus Warner's early articles refer to "types of societies" relative to such analytic dimensions as "degree of complexity" and type of "integrating structure."<sup>5</sup> This pre-

<sup>1</sup> W. Lloyd Warner, Marchia Meeker, and Kenneth Eells, *Social Class in America* (Chicago: Science Research Associates, 1949).

<sup>2</sup> W. Lloyd Warner and Associates, *Democracy in Jonesville* (New York: Harper and Brothers, 1949).

<sup>3</sup> See reviews by C. Wright Mills, *American Sociological Review*, 7 (April, 1942), 263-271; Kingsley Davis, *American Journal of Sociology*, 48 (January, 1943), 511-513; and Helen M. Wolfe, *Science*, 110 (October 28, 1949), 456; Warner's formulations on caste have been adequately dealt with in the critical literature, and are not considered here; see Oliver C. Cox, "Race and Caste: A Distinction," *American Journal of Sociology*, 50 (March, 1945), 360-368; and Maxwell R. Brooks, "American Class and Caste: An Appraisal," *Social Forces*, 25 (December, 1946), 207-211.

<sup>4</sup> W. Lloyd Warner and Paul S. Lunt, *The Social Life of a Modern Community, Yankee City Series, Vol. I* (New Haven: Yale University Press, 1941), p. 14.

<sup>5</sup> W. Lloyd Warner and Allison Davis, "A Comparative Study of American Caste," Ch. VIII in *Race Relations and the Race Problem*, ed. by Edgar

sumably involves the observation of a considerable number of communities in the hope that a subsequent comparative analysis will eventuate in "laws or principles" of social behavior and structure.

The second type of generalization from anthropological community studies which Warner proposed was no less than to "see, and understand the larger design of American life." The specific community is but a "laboratory" in which it is proposed to study "the social structure governing American capitalism."<sup>8</sup>

As to the first objective—the contribution of further materials for a comparative study of communities—there can be little question about the theoretical relevance of the researches, provided that the projected "comparative sociology" will be concerned with those same dimensions of social structure which the several studies have emphasized. Here the pertinent question is merely that of the efficacy of the methodology advanced.

But much more serious demands are placed on the data in connection with the second objective, i.e., when the level of abstraction becomes that of American communities in general, or the whole pattern of "American thought and action." Viewed in this light, the Warner researches are proceeding on the basis of assumptions as to the nature of modern society which are directly incompatible with the actual character of that society, as revealed by some of its most eminent students.<sup>7</sup> It is difficult on the basis of the available evidence to square Warner's lyric observation that "All Americans are in Jonesville" with the picture of the urban way of life which modern sociology has built up. Whereas in an urbanized

society social contacts are depicted by sociologists as typically impersonal, anonymous, and rational, the community studied by Warner has been described by another observer in terms more appropriate to the rural pole of the rural-urban typology:

In a town of 6,000 people, everything that is done, or not done, and then talked about tends to be personalized. One person does something at some time; other persons know about it, find out about it, and above all, gossip about it, and then pass judgment on it.<sup>8</sup>

More is involved here than the tendency shared with many American sociologists to confine studies to the local community level for the sake of ease in gathering data.<sup>9</sup> The traditional anthropological perspective of the Warner group together with their studied indifference to previous sociological literature leads to a failure to distinguish between "community" on the one hand and "society" on the other. American society—a vastly complex ecological, political, and economic entity—cannot be described adequately, in Sumner's formula, as comprised of "small groups scattered over a territory." Yet this is what is implied in an effort to derive an account of the larger unity, either by way of a comparative analysis of Jonesville and other small communities, or by direct extrapolation of the Jonesville findings.<sup>10</sup>

#### ON SOME METHODOLOGICAL PROBLEMS OF THE WARNER RESEARCHES

In prosecuting the major interest in the social stratification of the community, Warner has developed two techniques, both of which are used for the basic research tasks of ascertaining the "social class configuration" and placing individuals within the social class system. The first technique is termed "evaluated participation" (EP). It involves the content analysis of "indirect interviews" to "discover" the social class

T. Thompson (Durham: Duke University Press, 1939).

<sup>7</sup> *Democracy in Jonesville*, op. cit., pp. xiv-xv.

<sup>8</sup> Cf. Robert E. Park, Ernest W. Burgess, and Roderick D. McKenzie, *The City* (Chicago: University of Chicago Press, 1925); Louis Wirth, "The Urban Society and Civilization," *Eleven Twenty-Six*, ed. by Wirth (Chicago: University of Chicago Press, 1940); and Georg Simmel, "The Metropolis and Mental Life," *Contemporary Society, Selected Readings*, 8th ed. (Chicago: University of Chicago Bookstore, 1939).

<sup>9</sup> August B. Hollingshead, *Elmtown's Youth* (New York: John Wiley and Sons, 1949), p. 44.

<sup>10</sup> Cf. Edward Shils, *The Present State of American Sociology* (Glencoe, Ill.: The Free Press, 1948).

<sup>11</sup> Cf. Robert Bierstedt, "The Limitations of Anthropological Methods in Sociology," *American Journal of Sociology*, 54 (July, 1948), 22-30.

system, as well as to get at the "social participation" and "status reputation" of community members to whom references are made in the body of the interviews. Data from this source are summarized on "status personality cards" and form the basis for an "estimate of class position." The second technique, an objective "index of status characteristics" (ISC), is described as a "measure of socio-economic status." This index is the weighted sum of the individual's scores on four seven-point rating scales designed to evaluate, respectively, occupation, source of income, house type, and dwelling area. EP is thought to be the most valid and reliable method for identifying the social classes in a community and for placing community members in them. The ISC is considered only an approximate method if employed alone. However, if EP has previously been used on an "adequate" (*sic*) sample, a conversion table can be constructed to obtain the "social class equivalents" of ISC scores.

Despite a plethora of materials illustrating these techniques, some very basic points are left entirely opaque: What are the actual criteria for summarizing the interview data on the "social personality cards" (which are the basis for class placement by EP)? What use is made of the several rating scales for the "social levels" of participation by family, clique, church, and association? Do these rating procedures really represent the evaluations of "those who interact in the social system of the community?"<sup>11</sup>—or are they rather the subject judgments of the analyst?—and if the latter, what criteria are used for placing individuals on these scales? The fact is that these basic steps in arriving at EP are never clarified. No independent investigator could use or apply the technique with confidence that his results would approximate those that Warner would get with the same materials.

Since no reliability coefficients are presented, and the problem is not referred to, we do not even know whether the initiated adepts at these techniques get reliable re-

sults. This problem is perhaps rather less serious for ISC than for EP—though even the ISC formula requires the establishment of subjective rating categories by the investigator for two of its four component scales, i.e., house type and dwelling area. But the reliability problem must be quite serious for EP, which is not even claimed to be an "objective" method.

There is likewise no technical discussion of the validity of these two indices of social class. This is perhaps not a serious criticism, since in any case the utmost in validity that could be claimed for either index is that it yields an operational definition of social class. The validity problem enters obliquely in the extended treatment (over one-third of the methodological volume) of the predictive relationship between ISC and EP. In deriving EP the analyst is warned "to be sure that mention of the characteristics of the ISC are eliminated in order to guarantee that only Evaluated Participation is being considered."<sup>12</sup> The import of this procedural injunction is not clear. It is presumably offered as a device to prevent spurious correlation from entering into the establishment of a predictive relationship between ISC and EP. But such independence in the operational sense is factitious, for we have Warner's own evidence that members of the community "evaluate" each other, in part, on the basis of such "status characteristics" as dwelling area. Actually, it is never clear whether Warner regards ISC and EP as two different orders of data, or simply two different techniques for getting at an operational definition of social class. The problem of the validity of either index is therefore bound up with the whole conceptualization of the research, which we discuss below.

Perhaps the most serious methodological criticisms that can be leveled at the Warner researches arise in connection with the problem of sampling. Despite the statistical orientation of many of the studies, this problem has in no sense been adequately treated.<sup>13</sup>

<sup>11</sup> *Ibid.*, p. 115.

<sup>12</sup> Sampling instructions and information given about the samples merely state the problem; for

<sup>13</sup> *Social Class in America*, *op. cit.*, p. 35.

This obvious gap in the reporting of the researches can perhaps be blamed on the anthropological background of the Warner group:—As Wirth has pointed out, in very few instances do anthropological monographs even take the trouble to delimit the universe on which they are reporting.<sup>14</sup> Even "rural" Jonesville, however, is relatively complex in comparison to the typical primitive community; this necessitates considerably more circumspection in case selection than has been exhibited in the Warner researches. Inasmuch as EP, which necessarily depends on interview materials, is considered the most valid method, it is incumbent on the investigator to be quite specific regarding the sampling problem. (Yet at no point in either study are the relative sizes, the methods of selection, or the characteristics of the samples referred to or discussed.)

All the results in the methodological volume are derived from a study of 339 cases, which cover about one-sixth of Jonesville's 2,095 families. The major criterion for the selection of these cases seems to have been merely that data on both EP and ISC were available for the individuals concerned. A second criterion was the certainty of the EP estimate of social class position, although there is no indication of how "certainty" was defined or measured. Though the report does not try to evaluate the representative character of this sample, a few stray bits of data appear which strongly indicate that it is *not* representative, and is in fact seriously biased toward the upper reaches of the stratification structure. Thus, the "upper" class comprises 13 per cent of the 339 sample cases (or 21 per cent of the 209 Old American cases), but only 3 per cent of the total population of Jonesville. Income data are given for only 108 cases, but of these, 63 per cent have incomes classed as "above

average" or higher. Finally, a total of 53 per cent of 208 cases on whom occupational ratings are given falls into the upper three categories of professionals and proprietors of large businesses, semi-professionals and smaller officials of large businesses, and clerks and kindred workers. Whereas Census figures for "Jonesville"<sup>15</sup> for 1940 show that 35 per cent of employed persons are classified as professional workers; semi-professional workers; proprietors, managers and officials (except farm); and clerical, sales and kindred workers. This figure, while not exactly comparable with Warner's, is comparable enough to disclose a wide discrepancy between sample and population.

This demonstrated bias in the sample raises serious questions about the conclusions on the accuracy of predicting EP from ISC, when the latter is applied to the whole population, rather than just within the sample. These suspicions are at least partially justified by a study of class differences in the errors of prediction. The discussion and analysis of prediction errors certainly is one of the most important aspects of the research, yet it is treated with the least imagination of any topic. It would seem patent that the major interest should be centered here, not only because the whole area of social stratification is shot through with complicated relativities, but also because the ultimate interest is in correctly identifying the members of each class, as well as minimizing errors of class placement for the community as a whole. Warner, however, virtually neglects the discussion of prediction errors by class, and instead devotes the bulk of the discussion to errors of placements by "grades" *within* classes.<sup>16</sup> In a brief para-

<sup>14</sup> The actual name of Jonesville has been stated in print, though not in any of the research reports.

<sup>16</sup> The concept of "grade" seems to be purely operational and arbitrary, being introduced, apparently, to get the data in a form amenable to correlation analysis. Warner seems to recognize the largely factitious character of the "grades": "The grades assigned by evaluated participation do not always prove valid, but they are useful in training the status analyst to exercise care (*sic*) and continually to refine his analysis" (*Social Class in America*, *op. cit.*, p. 97.)

example: "Establish class levels by Social-Class Configuration from a number of interviews with several people." (*Social Class in America*, *op. cit.*, p. 116.)

<sup>15</sup> For Wirth's observation, see Herbert Blumer, *An Appraisal of Thomas and Znaniecki's The Polish Peasant in Europe and America*, Social Science Research Council Bulletin 44, 1939, p. 129.

graph devoted to class errors, it is simply reported that the greatest percentage error occurred in the upper-lower class. Though the authors give no table of prediction errors by social class, such information can be compiled from data given at two different places in the monograph. The column, "percentage error," in Table 1 is our own computation,

TABLE 1. ERRORS IN PREDICTING CLASS LEVEL (AS DETERMINED BY EP) FROM ISC SCORES, FOR THE SAMPLE OF OLD AMERICANS

Social Class (as determined by EP)	Number in sample	Number of errors*	Per- centage error
Upper	44	8	18
Upper-middle	50	11	22
Lower-middle	44	3	7
Upper-lower	28	9	32
Lower-lower	43	2	5
All Classes	209	33	16

\* The number of errors is given for only 200 of the 209 cases in the sample.

Source: Data abstracted from Tables 10 and 30, *Social Class in America*, op. cit.

and represents, if anything, an understatement of the errors, since the 33 cases incorrectly predicted are drawn from only 200 of the 209 cases for which the class distribution is given. While Warner gives considerable favorable attention to the over-all error of 16 per cent, it is obvious that such an average is misleading since the error is not at all evenly distributed by class. For three of the five classes the percentage error exceeds this average figure, and it is twice the average in the case of the "upper-lower" class.<sup>17</sup> Incidentally, the "upper-lower" is the most numerous class in the total population, though not in this unrepresentative sample. The over-all error of prediction would, therefore, be substantially greater than the reported 16 per cent, if the total population were considered rather than the sample alone. It might also be noted that

<sup>17</sup> Hollingshead likewise reports the greatest percentage of disagreements on the ratings of individuals in "Class IV" (*Elmtown's Youth*, op. cit., pp. 39, 41.)

the monograph makes the barest reference to another crucial aspect of the sampling problem—namely the almost invariable loss in predictive accuracy involved in applying an instrument developed on one sample to another.<sup>18</sup> Altogether it would appear that unscientific sampling practice vitiates to a considerable extent the claims made for the ISC as an instrument for determining class level by the criterion of EP.

A final observation along methodological lines concerns the feasibility of the techniques recommended in the situations for which they are prescribed. It is claimed that both the methods, EP and ISC, "can be used in any kind of community."<sup>19</sup> But imagine the plight of an investigator starting out, manual in hand, to do a study of stratification in, say, Detroit. He would find the problem of sampling left largely to his own imagination, given only the erroneous guidance that "city directories are excellent sources."<sup>20</sup> Supposing his sample were "well distributed throughout the city," how would he fare with "rating by matched agreements" which presumes that "many of the same names appear in two or more informants' interviews?"<sup>21</sup> (Incidentally, this is the only method for which comparable ratings by two or more persons are presented in the text.) While these and other difficulties in applying the methods to metropolitan areas are patent, it is curious that no exposition of them is given, despite the experience with "systematic studies from coast to coast, in cities large and small. . . ." <sup>22</sup> While "segments of the Chicago population"<sup>23</sup> have been studied with ISC, yielding results of admittedly problematical value, no such experience is mentioned for EP—and on the face of the matter, the latter technique is

<sup>18</sup> Cf. Lloyd E. Ohlin and Otis Dudley Duncan, "The Efficiency of Prediction in Criminology," *American Journal of Sociology*, 54 (March, 1949), 441-451; Paul Horst, et al., *The Prediction of Personal Adjustment*, Social Science Research Council Bulletin 48, 1941, pp. 104-106.

<sup>19</sup> *Social Class in America*, op. cit., p. 36.

<sup>20</sup> *Ibid.*, p. 227.

<sup>21</sup> *Ibid.*, p. 37.

<sup>22</sup> *Ibid.*, p. 24.

<sup>23</sup> *Ibid.*, p. 203.

obviously impractical and impossible except in a community of restricted size and with predominantly primary contacts.

ON THE CONCEPTUALIZATION OF THE  
WARNER RESEARCHES

The concept of class has been one of the most ambiguous in the sociologist's vocabulary. There are two major reasons for the present lack of consensus on its definition. On the one hand, it is a generic term, covering a wide variety of phenomena, operations, and purposes for different writers. On the other hand, it is also a term which is shot through with historical, political, and social connotations which often have served to make it more of a slogan than a research tool. Warner's formulations of the nature and significance of the concept reflect both these difficulties.

His position is an excellent example of a most unfortunate trend in contemporary stratification research—that of making a particular definition, specific in its *denotative* properties, serve a more general purpose in its *connotative* usages. Thus Warner employs the term in the very restricted sense of "social" class, locating individuals primarily with reference to a prestige hierarchy ("social reputation"), but in discussing the significance of the findings he implies that its use in this sense covers the ground generally. This is exemplified in the effort to discount Marxian analysis on the basis of the conceptualization and findings in Yankee City and Jonesville.

There can be no quarrel with the explicit use of the concept "social class" to refer to hierarchical status levels relative to such criteria as "social participation" and "social reputation." However, there are obviously other alternatives for "classifying" a population—there is class and class. And the "social" classes with which Warner is concerned are not necessarily the same phenomena with which Mosca, or Marx, or Veblen, for example, were concerned. In this connection the effort to discount other students' work makes us suspicious of the possible ideological implications of the whole endeavor. It is certainly true that one's social

class (in Warner's sense), plays an important part in one's life; further, that such classes are an important functional aspect of local community structure. It may be said, however, just as T. H. Marshall remarked of Marx's formulation, "This does not exhaust the topic of stratification."

Even a superficial examination of the literature on social stratification provides a basis for characterizing two quite different approaches to the problem of class. On the one hand there exists a tendency for many theorists to consider class relative to the distribution of *power* in the economic and/or political sense. On the other hand, much stratification theory and research centers on the phenomenon of *prestige*, classes being located relative to a hierarchy of esteem rather than power. That a fundamental distinction as regards *types* of classes is involved can be seen from certain other correlative facets of these two perspectives. Thus, whereas research on power classes seems to be done on the more abstract national level,<sup>24</sup> prestige class data are usually obtained from and referred to local communities.<sup>25</sup> Again, the power type of class is usually pictured as a mass phenomenon—an unorganized aggregate—while the prestige type is usually thought of as associational in character, having the attributes of a society. Power classes are generally assumed to come into existence on the basis of identity of economic and/or political "interests," and interclass relations are studied primarily in terms of conflict. Prestige classes usually are assumed to involve

<sup>24</sup> E.g., Richard Centers, *The Psychology of Social Classes* (Princeton: Princeton University Press, 1949); Goetz A. Briefs, *The Proletariat* (New York: McGraw-Hill Book Co., 1937); Robert Marjolin, "The Middle Classes in the United States," *Inventories*, Vol. III, ed. by C. Bouglé (Paris: Alcan, 1939) mimeo, translated by S. L. Thrupp for use at the University of Chicago.)

<sup>25</sup> E.g., Charles Booth, *Life and Labor of the People in London*, 17 vols. (London: Macmillan, 1902-34); Harold F. Kaufman, "Defining Prestige Rank in a Rural Community," *Sociometry*, 8 (May, 1945), 199-207; John Useem, Pierre Tangent, and Ruth Useem, "Stratification in a Prairie Town," *American Sociological Review*, 7 (June, 1942), 331-342.

shared attitudes held in common—not simply like attitudes held by individuals. Further, such interclass relations are viewed as essentially accommodative in quality.<sup>26</sup> Finally, whereas homogeneity of social origins is irrelevant in the case of power classes, such homogeneity is regarded as the *sine qua non* of prestige classes. While both approaches seem valuable for their respective insights, the limited relevancies of each should be recognized. A confusion enters in when the protagonists of the prestige class define their concept on the basis of such criteria as intimate association, culture, family, way of life, etc., and then, because they fail to find group closure and intimate participation on the national level, conclude that power classes just do not exist<sup>27</sup>—or, as in the case of Warner, assume that the study of prestige classes encompasses the whole field. Undoubtedly there are relationships between the two types of classes, but this is an empirical question—in fact, a crucial question—yet to be answered by research.

Not only is the substantive character of Warner's classes of limited relevance, but, in the final analysis, since he provides no consistent conceptual scheme, it is also difficult to draw conclusions as to their logical character. At times his social classes are considered real entities; at other times they become simply heuristic constructs; and, at one point in the Jonesville volume, the class structure seems to be regarded as a continuum. As mentioned above (in connection with the use of the seven-point "status level" scale to arrive at EP), there is even some question as to whether his "social classes" represent the community's or the analyst's evaluations.

There are numerous indications that the principal motivation of many crucial points of the analysis is more a matter of the imposition of a set of categories and the manipulation of a technique than the under-

standing of what is at stake—the social structure. This point is evidenced by a general tendency to regard any anomalies encountered as being problematic only in a methodological light, rather than from the standpoint of the theory of class structure. There is often a failure to consider the meaning of negative instances, or to consider alternative hypotheses.

For example, it is pointed out that the upper-lower class is least sharply defined and least rigorously related to the status characteristics:—"The upper-lower class, least differentiated from the adjacent levels and hardest to distinguish in the hierarchy, but clearly present (*sic*)."<sup>28</sup> Just how "clearly present" is defined remains a mystery. We suggest, however, that its "visibility"—or the visibility of any class—is not solely a methodological issue. Rather, alternative hypotheses should be considered in the light of the data at this point.

On the one hand, it is theoretically and empirically possible that such a category as "upper-lower" does not, in fact, exist in the sense that the middle, upper, or lower classes do. Halbwachs' study of the standards of living of the working classes offers a basis for just such an interpretation! On the basis of an examination of family budgets, Halbwachs notes the relative lack of development of the "housing need" among the working classes, which is a characteristic setting it off from the upper classes. He concludes that "within the working class sub-divisions of a social character do not appear and the unity of this class remains complete."<sup>29</sup> Whereas with regard to the upper classes,

rather clear intervals separate the prices of lodging [and] to each figure for rental expense are found associated, in the social mind, definite figures for each one of the other expenses [food and clothing]. To these determined standards of living correspond distinct social strata.<sup>30</sup>

On the other hand, the indeterminacy of

<sup>26</sup> See especially, Useem *et al.*, *op. cit.*

<sup>27</sup> Dewey Anderson and Percy E. Davidson, *Ballots and the Democratic Class Struggle* (Stanford: Stanford University Press, 1943), pp. 250-255.

<sup>28</sup> *Social Class in America*, *op. cit.*, p. 14.

<sup>29</sup> Maurice Halbwachs, *La Classe Ouvrière et les Niveaux de Vie* (Paris: Alcan, 1913), p. 450.

<sup>30</sup> *Ibid.*, p. 451.

the "upper-lower" class might be significant in and of itself! It can rather be interpreted as evidence in favor of Parsons' hypothesis as to the vagueness of the "actual scale of stratification" in this country, and further, the functional character of this indeterminacy as a "cushioning mechanism."<sup>31</sup>

That the inspiration of the study is often merely operational and manipulative is indicated by the treatment of findings such as the following:

Symbolic Placement is almost equally sure as a placement technique, but unfortunately (*sic*), Symbolic Placements are less often used for the lower-middle and upper-lower classes than for the top and bottom levels.<sup>32</sup>

Two points should be made with reference to this sort of data and its interpretation by Warner. In the first place, the material is, in fact, of considerable significance in getting at differential social class perspectives. Therefore it should not be seen as representing simply a methodological impasse. Secondly, such data are evidence for other propositions which might be called to mind relative to the nature of the phenomena Warner and his people are studying.

Thus, the fact that Symbolic Placements are used primarily for the extremes of the social class hierarchy might lead one to conclude that the "upper-upper" and "lower-lower" classes are more nearly, in Weber's terms, "status groups" than "social classes."<sup>33</sup> The concept of "closure," which is crucial for the structure of status groups, would seem to have little meaning relative to the "middle" classes; whereas the estate-tendencies at the extremes of the social class configuration as well as the "communal" character of the upper-uppers and lower-lowers are obvious from the data at hand.

Another illustration for our argument is the passing off of the reported failure of the ISC to discriminate between upper-

uppers and lower-uppers on the basis of the "numerical insignificance" of the upper-upper social class.<sup>34</sup> Obviously the relatively small numbers involved will have little effect from the standpoint of statistics on "overall placement error." On the other hand, if the analysts are primarily concerned (as they insist) with the understanding of the social structure of the community, the importance of the upper-uppers is, of course, in no way proportionate to their relative numbers.<sup>35</sup>

The significance of the general area of Warner's interest and the value of much of his data should not be underestimated. At the same time it is quite obvious that the lack of an insightful set of interrelated questions with which to face the materials makes the final results disappointing. As Speier has pointed out, a theory of social stratification should so define its objective that it may be distinguished from a general theory of the influence of society on behavior.<sup>36</sup> No such distinction is attempted in the Warner volumes, with the result that important facets of the phenomenon of stratification are not brought into focus. As a matter of fact, insofar as social classes are conceived primarily as microscopic societies with distinctive cultures, the general outcome of the studies would seem to be merely a variety of cultural determinism. Thus, in *The Social Life of A Modern Community* there are whole chapters which are nothing but catalogs of culture traits descriptive of each of the several classes, with no attempt to distinguish the structurally crucial from the more or less incidental traits. The net impression is simply that social classes are important in many areas of social life. If the interest is in the phenomenon of stratification, however, of equal importance is information concerning areas in which social

<sup>31</sup> *Social Class in America*, *op. cit.*, p. 125.

<sup>32</sup> The failure of the ISC in this connection is further evidence for our proposition as to the status group character of the upper-upper as opposed to the class character of the intermediate categories.

<sup>33</sup> Hans Speier, "Social Stratification in the Urban Community," *American Sociological Review*, 1 (April, 1936), 193-202.

<sup>34</sup> Talcott Parsons, *Essays in Sociological Theory* (Glencoe, Ill.: The Free Press, 1949), pp. 180-182.

<sup>35</sup> *Social Class in America*, *op. cit.*, p. 114.

<sup>36</sup> It has already been pointed out by C. Wright Mills (*op. cit.*) that Warner's conceptualization involves a failure to distinguish between status groups and classes; our point is somewhat different.

classes are not determinative. Only in connection with the bearing of sex on social class does Warner give any evidence of the lack of relevance of social class as "the fundamental integrating structure." He observes that in the case of clique behavior where the exercise of skill is the primary motive, social class is *not* determinative of the associational pattern:—"If social participation is outside the home away from their families the class differences of the participants are more varied."<sup>37</sup> Since in metropolitan centers a large proportion of male contacts are of this character, this only raises again the question as to the adequacy of the Warner formulation for understanding large and important aspects of our social structure.

The failure to come to grips with the nature of the stratification phenomenon and the lack of interest in developing a coherent body of theory are nowhere more clearly brought out than in regard to the problem of mobility, which is admittedly of central concern. The conclusions (though singularly unstudied) of both the Yankee City and Jonesville researches are that in spite of the existence of social class lines (1) there is, in fact, mobility; and (2) popular belief in the possibility of mobility performs an important function in stabilizing our social organization. Yet it is amazing that we find—in spite of the vast amount of funds expended, time consumed, and materials gathered—not a single figure in any of the studies which bears on the crucial empirical questions of (1) how much mobility in fact takes place, and (2) at what points in the social class system it occurs. Except for some partly inferential data on the assimilation of ethnic groups, the only data cited on mobility are the fictionalized case histories.

In view of the importance of answers to these critical questions, the failure adequately to deal with them indicates inherent weaknesses in the theoretical equipment brought into play in the analysis of the materials. That this question is left unex-

amined hangs together, of course, with the focus on prestige rather than power classes. The amount and location of mobility is significant primarily as it bears on the probability of certain types of class action,<sup>38</sup> a problem which is relevant in the theoretical context of power classes, but which can scarcely even be formulated in terms of prestige classes. The ideological biases of the Warner enterprises are further revealed in the discussions of the purposes of the methodological volume. Thus it is declared that the status system is being investigated in order that people may learn "where they fit in" and how they may "improve" or "make more tolerable" (*sic*) their present positions. Such techniques are regarded as a prerequisite for "adjustment"—a vacuum value of the first order!<sup>39</sup>

Yet to live successfully and *adaptively*, in America, every one of us must *adjust* his life to each of these contradictions. . . . It is the hope of the authors that this book will provide a corrective instrument which will permit men and women better to evaluate their social situations and thereby better to *adapt themselves to social reality* and fit their dreams and aspirations to what is possible.<sup>40</sup>

The crucial question at this point in the analysis is, of course, *whose reality?*

Here again, the data are informative if significant questions are asked of them. One of the major problems in class theory is the relation of objective position to subjective perspective. And Warner's data do, in fact, show that as one's social class differs, the image of the social structure one has also varies. Even fairly simple Jonesville is heterogeneous enough to exhibit a lack of consen-

<sup>37</sup> Cf. Francis D. Wormuth, "Class Struggle," Indiana University Publication, Social Science Series No. 4, 1946; Elbridge Sibley, "Some Demographic Clues to Stratification," *American Sociological Review*, 7 (June, 1942), 322-30; John W. Bennett and Melvin M. Tumin, *Social Life* (New York: Knopf, 1948), Ch. 29.

<sup>38</sup> A characterization proposed in William L. Kolb, "Sociologically Established Family Norms and Democratic Values," *Social Forces*, 26 (May, 1948), 451-456.

<sup>39</sup> *Social Class in America*, *op. cit.*, p. 5 (emphasis added).

<sup>40</sup> *Social Class in America*, *op. cit.*, p. 88.

sus as to the number of classes and the criteria of status. But, the "reality" which Warner has chosen to abstract and the criteria which he uses for ranking purposes can be shown to be biased toward the upper reaches of the social class system. For example, while the materials from the upper and middle ranges clearly stress the criteria of social participation and acceptance, Warner himself says the following of the upper-lower image:

He sees class as purely a matter of income and power. . . . He draws a distinction between powerful land owners and wealthy industrialists and professional people, but he puts all of them at the top. . . . His class lines are less clearly drawn than those of the others.<sup>41</sup>

Interestingly enough, Lundberg makes the same sort of incidental observation in an experimental study of alternate rating techniques:

The large disagreement between the janitor and the banker on the last four cases appears to have been largely due to an admitted tendency on the part of the janitor to consider primarily *income and property* in his rating, whereas the banker gave more weight to the instruction which emphasizes "how comfortably people live in their homes and in their community."<sup>42</sup>

Obviously the janitor's criteria for rating people in the community are *different* from those of the banker. Observations of this sort should suggest a problematization of the question of social class in terms of its relativities, rather than an attempt to impose a monolithic "class structure" on the data. Both Warner and Lundberg, however, regard the disagreement among raters as purely a methodological problem and fail to perceive its theoretical relevance.

A bias toward upper and middle class criteria of status is also evident in *Deep South* where the "structure" of a class is defined in terms of "the interrelationships between . . . families and cliques, in such informal activities as visiting, dances (*sic*),

receptions (*sic*), teas (*sic*), and larger informal affairs (*sic*)."<sup>43</sup>

Or consider Warner's use of "house type" as a measure of social status. Halbwachs' materials are again pertinent. We have already mentioned the significant conclusion on the lack of development of the "housing need" among members of the working class. On the other hand, regarding the upper class, he points out that "with respect to external indices of wealth, the housing expense is most often in the foreground." While not denying that variations exist in the quality of housing among the working class, Halbwachs contends that the working class "has not yet become conscious of the social importance of lodging."<sup>44</sup> This discrepancy between upper and working class is further discussed in reference to differential culture patterns involving family organization, relations among families, and family expenditures. While this argument can be extended only tentatively to American society at present, the presence of such a strong hypothesis in the literature should suggest the relativity of "status symbols" and the necessity of empirical inquiry into their discriminatory character at all levels of stratification. Warner's procedure by-passes this whole problematization, and in effect, by arbitrarily taking "house type" as a criterion of rank, he chooses to regard the upper class view as "real" rather than as class determined. This matter of the class-bias of the central conceptual apparatus is, of course, a much more serious weakness of the Warner researches than the statistical bias in case selection, which we noted above.

#### CONCLUSION

In summary, we believe we have demonstrated (1) that the type of study which Warner and his associates have developed is to a considerable degree not relevant to their announced objective of portraying the stratification structure of American society;

<sup>41</sup> *Ibid.*, p. 57.

<sup>42</sup> George A. Lundberg, "The Measurement of Socioeconomic Status," *American Sociological Review*, 5 (February, 1940), p. 32 (emphasis added).

<sup>43</sup> Allison Davis, Burleigh B. Gardner, and Mary R. Gardner, *Deep South* (Chicago: The University of Chicago Press, 1941), p. 59.

<sup>44</sup> Halbwachs, *op. cit.*, pp. 451-452.

(2) that technical deficiencies in the execution of their studies considerably weaken the support claimed for their findings; that their methods are not yet proved to satisfy scientific requirements of reliability and communicability and are, further, patently inapplicable in some of the situations they are recommended for; and (3) that their conceptual formulations are inadequate to account even for their own findings, are theoretically uninformed in relation to the existing literature on social stratification, and further, are ideologically suspect.

That the Warner researches fall short in these respects is in some degree attributable to the general weaknesses of the "anthropological approach" to contemporary complex societies, which have been elsewhere called to the attention of sociologists.<sup>45</sup> The seeming sufficiency of this approach has served to keep the Warner group isolated from a considerable body of relevant speculation and research on contemporary social stratifi-

cation, and has led to a failure to discern the crucial problems which these studies have raised. This same one-sidedness probably accounts also for the defective standards of scientific reporting which mar all the published monographs.

Despite the obvious character of our critical remarks, we are somewhat concerned to note that Warner's formulations have by and large been accepted uncritically into a great many sociological texts (as being, apparently, very "teachable") and into the everyday patois of practising sociologists. There are notable, but seemingly uninfluential, exceptions. While sociologists have reacted quite unfavorably to the zoological approach to sex (Kinsey), they have apparently not exercised equal acumen with regard to the materials under review. We look hopefully, therefore, to the improvement of standards in this regard—even more hopefully, of course, to the execution of superior research in this area on the part of sociologists who can certainly profit by thoughtful examination of the Warner efforts.

<sup>45</sup> Cf. Bierstedt, *op. cit.*

## STRATIFICATION IN THE MASS SOCIETY\*

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IT is a commonplace to state that the study of social stratification is in a chaotic state. One writer has recently said that "There is no general agreement among sociologists at the present time as to what factor or combination of factors delineates the social class. All concur that the concept of class deals with the horizontal stratification of a population, but whether it is based on economic power, occupation, status feelings, culture differences, or their combination, and to what extent separate group life is indicated by the term, are questions on which there is no substantial agreement."<sup>1</sup> And another has commented that "Although well aware of social class, social scientists have been more concerned with their theories and with quarrelling among themselves about what social class is than studying its realities in the daily lives of people."<sup>2</sup>

It is impossible not to agree with the general tenor of these statements. However, all is not lost so long as it is possible to place the varying theoretical and empirical materials in any sort of sensible order. And this at least does seem possible. Moreover, it is the thesis of this paper that once placed in this order, the materials do reveal a promising amount of convergence. As widely variant as sociologists may have been with respect to this problem, the consequences of their thinking and research are adequate to provide some identification of a common frontier, or frontiers, which now should and can be penetrated.

\* Paper read at the annual meeting of the American Sociological Society held in New York, December 28-30, 1949.

<sup>1</sup> Milton M. Gordon, "Social Class in American Sociology," *American Journal of Sociology*, LV (November, 1949), 265.

<sup>2</sup> W. Lloyd Warner, Marchia Meeker, Kenneth Eells, *Social Class in America*. Chicago: Science Research Associates, 1949.

### SOURCES OF DIFFICULTY

There seem to be five major interrelated areas of disagreement which revolve around: (1) terms, (2) whether the determinants of stratification are subjective or objective, (3) whether class is classificatory or substantive, (4) the variety of institutional matrices within which stratification occurs, and (5) the question as to the extent to which stratification is to be regarded as occurring on the local community level and the extent to which it is to be seen on the level of the mass society.

1. *Terms*. Although a frequent source of annoyance this problem should not require attention at this point, since an arbitrary solution is possible.

2. *Objective vs. Subjective Conceptualization of Stratification*. The subjective point of view focuses primarily upon the term "social class" and assumes classes to be substantive in nature. This is illustrated by the statement: "No matter what objective criterion we use, we do not have a social class unless class consciousness is present."<sup>3</sup> This point is also made by Centers who states that "Class, as distinguished from stratum, can well be regarded as a psychological phenomenon in the fullest sense of the term, that is, a man's class is a part of his ego, a feeling on his part of belongingness to something; and identification with something larger than himself."<sup>4</sup> The objective view on the other hand maintains that classes, economic or social, are determined outside the consciousness of the individual. It can thus be seen that the question of objectivity versus subjectivity depends upon the existence of substantive classes and hence further discussion of it must await

<sup>3</sup> R. M. MacIver and Charles H. Page, *Society*. New York: Rinehart & Co., 1949, p. 350.

<sup>4</sup> Richard Centers, *The Psychology of Social Classes*. Princeton: Princeton University Press, 1949, p. 27.

fuller treatment of the more general problem, stratification.

3. *Conceptualization of Stratification as Classificatory or Substantive.* As in the case of the second point, this source of disagreement refers to a highly specialized aspect of stratification, that is, social class, and consequently must also wait upon further clarification of stratification itself.<sup>5</sup>

4. *The Variety of Institutional Matrices.* This difficulty in the understanding of stratification has been stated in a variety of ways. One of the oldest and certainly one of the clearest is Max Weber's formulation of the three orders of stratification.<sup>6</sup> To him the differential distribution of power is the essential basis of stratification and power is defined as the ability to control the behavior of others. The sources of power are found, according to Weber, in three major social institutions. First, there is the legal order associated with the use of physical or psychical compulsion with the intent of obtaining conformity with the order or of inflicting sanctions for violations of it. The unit of stratification within the legal order is the political party, a category so defined that it may be found in any group which is "societalized," that is, which has a rational order and a staff to enforce that order.

Second, there is an economic order which is directly conditioned by differing relations to the market and hence to material production. The units of stratification within this order are considered to be "classes." Class is thus defined by Weber as a collectivity possessing similar life chances determined by the operation of the market in the differential distribution of material property.

The third structure within which stratification occurs is considered to be the "social" order. This is based upon the differential distribution of "social honor," and the units

within this order are termed "status groups." These Weber defines as groups characterized by a specific style of life linked to restrictions on social intercourse, that is intercourse which is not subservient to economic or business ends.

It must, of course, be made clear that for Weber, the three orders of stratification are very closely intertwined and that any one may affect or be affected by any other, or any combination of orders. It is this fact which has made an agreement upon the nature of stratification difficult. Weber has posed, but not solved, the problem of analyzing the net effects of each of these three highly interrelated systems. It has, however, unquestionably aided in our understanding of stratification by positing a series of areas within which work should be done.

5. *The Problem of Community Matrices.* The question as to whether stratification is to be considered a function of the local community or of the mass society is, of course, merely a segment of the larger theoretical question concerning the nature and significance of the differences between these two aspects of society as determinants of human behavior. This problem has been raised by Redfield in his statement that "Anthropologists commonly used the terms 'community,' 'society,' 'culture' interchangeably; while the distinctions among these concepts may be of significance in dealing with the modern urbanized and industrialized society."<sup>7</sup> The context in which this quotation is found makes it clear that the distinctions referred to are not concerned with the larger abstractions of culture, community and society but rather with the essential problem of dealing with what sociologists have in mind when distinguishing between the primary and secondary community.

On the taxonomic level, sociology is by no means unaware of the significance of these differences. Even introductory textbooks contain one or more of the common dichotomies, such as *gesellschaft* and *gemein-*

<sup>5</sup> Llewellyn Gross, "The Use of Class Concepts in Sociological Research," *The American Journal of Sociology*, LIV (March, 1949), 410-11.

<sup>6</sup> The following discussion of Weber's thought on this point is taken from H. H. Gerth and C. Wright Mills, *From Max Weber*. New York: Oxford University Press, 1946, Ch. 7.

<sup>7</sup> Robert Redfield, "The Folk Society and Culture," *Eleven Twenty-six*. Chicago: University of Chicago Press, 1940, pp. 46-47.

*schaft*, *connubium* and *commercium*, social segment and social organ, primary and secondary communities, or some other variant of this notion. It is not so clear, however, that the significance of this distinction with respect to research and theory is always understood, or at least it is frequently not made explicit. For example, local communities are used in one way when they are employed mechanically as primary sampling units in a large statistical study. In such a case there is no need of being concerned with the primary-secondary community differences. Local communities are, however, also used in an entirely different fashion, which does call for specific elaboration of the theoretical relationship when the study takes what Redfield has called the anthropological view—sees the local community and society as one. Stratification seems to be one field in which this has been notably true. Reference is made here to those cases in which the community is taken as a replica of the larger society. In these, the local community is not a sample but a universe—and more, the universe is taken to be that of the larger society. This procedure is illustrated by Warner's conception of the role of Jonesville: "Jonesville has been our laboratory for studying Americans. The social structure governing American capitalism lies within the actions of its people, for the lives of the ten thousand citizens of Jonesville express the basic values of 140 million Americans."<sup>8</sup> This ignores the problem raised by Redfield and, in fact, fails to consider some of the most fundamental characteristics of a complex society. Theoretical problems which immediately rise from such an assumption of the identity of the local community with the national life are that modern industrial society is characterized by, among other things, regional specialization, local differentiation, impersonality and mobility. These are factors which cannot by definition exist on the level of the local community. To this extent, Jonesville *cannot* be taken as America. Any satisfactory

theoretical conception of stratification in the mass society must, therefore, allow not only for its local impact, but also for its significance in the patterns of the larger society.

#### 6. Summary of the Sources of Difficulty.

If, then, the problem of nomenclature is temporarily ignored and the questions of subjective-objective and classificatory-substantive conceptualizations are deferred for subsequent consideration, it is possible to summarize the problems in stratification theory in a sentence or two. There are six (or perhaps more, if institutional contexts in addition to those listed by Weber are chosen) possible orders within which stratification develops. These may be seen as a paradigm containing Weber's three orders of stratification, each one of which in turn may be viewed as existing on either the level of the local group or the level of the secondary society. This paradigm can serve as a frame of reference within which to examine alternative formulations.

#### ALTERNATIVE SOLUTIONS

When the modes of solution to the problem posed by the foregoing are analyzed they appear to fall into two general types. One may be called "solution by correlation." This includes those conceptualizations which employ an index, or indexes, correlating highly with all the possible orders of stratification. The second is "solution by summation" and embraces those attempts to solve the problem by assuming that all of the elements in the paradigm suggested earlier in this paper can somehow be combined into a single status system.

1. *Solution by Correlation.* The chief difficulty with these solutions lies in their lack of validation and standardization. In general it may be said that the extent to which high correlations characterize all elements in the paradigm is unknown. In addition, most of these solutions have not been demonstrated to be applicable in cross-regional or cross-community (in terms of size of community) studies. Insofar as this is true such solutions are incomplete and in need of further refinement.

<sup>8</sup> W. Lloyd Warner and Associates, *Democracy in Jonesville*. New York: Harper & Bros., 1949.

A. *Single Factor Indexes.* Income, education, area of residence and occupation have been the chief factors employed in this approach to stratification. The most systematic work on these has unquestionably been done in the field of occupational classification, of which Alba Edwards' socio-economic scale of occupational classification using primarily distinctions between "head and hands" types of employment is perhaps the most frequently used.<sup>9</sup> Another type of classification of eighty-eight occupations has been suggested by an NORC survey using the prestige ratings given by a representative sample of the United States.<sup>10</sup>

B. *Multiple Factor Indexes.* A wide variety of multiple factor indexes exists. Some are adapted to rural regions as, for example, the work of Sewell,<sup>11</sup> while others, such as Chapin's social status scale,<sup>12</sup> are applicable only to urban conditions. Composite scales may employ as few as two indexes, or several, as the case may be. These indexes may in turn represent either one or a combination of the cells in the paradigm of stratification. C. Wright Mills, for example, has usefully combined income and occupation,<sup>13</sup> both characteristic of the economic order. Chapin's, Sewell's and similar scales, on the other hand, have all drawn upon the social order and local community values as well as upon the economic order. Such multiple factor solutions may appear on the basis of commonsense to be measurably superior

to the single factor indexes but this has yet to be definitively demonstrated and, in any case, the correlations of both types with all possible orders of stratification need still to be investigated.

2. *Solution by Summation.* This mode follows two general lines. One of these is essentially a theoretical description of the way in which the orders of stratification are integrated within a society; the other is an empirical application of the hypothesis that all orders contribute to a single status system.

A. *Analysis by Role and Status.* Any approach to the solution of the problem through the analysis of role and status elements in social position must undertake the responsibility of relating these to each of the possible orders of stratification. From among those who have selected this approach, Kingsley Davis' statement of the position is chosen as the most complete.<sup>14</sup> Status is defined as the expectations of society around given functions and statuses have the quality of differential value. In this way statuses confer a *prestige* value upon their occupant. *Role*, on the other hand, refers to the manner in which the occupant of a status fulfills the status expectations and thus contributes an *esteem* value to one's total social position, which is thus seen as some type of summation of a wide variety of statuses and roles. Social position is thus regarded as a personal quality rather than a locus in a social structure. Strata are composed of individuals possessing social positions with approximately equivalent values.

The manner in which this approach combines the increments of positional value from all possible cells of the paradigm of stratification, may perhaps be represented by the formula:

$$SP = f (P_1, P_2 \dots P_n), g (E_1, E_2 \dots E_n)$$

in which SP is the total social position,  $P_1$  is the prestige value of any one status and  $E_1$  the esteem value of the role associated with that status;  $P_2, E_2$ , etc. represent pres-

<sup>9</sup> Alba M. Edwards, *Comparative Occupational Statuses for the United States* (16th Census, 1940), U. S. Government Printing Office, 1943.

<sup>10</sup> Cecil C. North and Paul K. Hatt, "Jobs and Occupations: A Popular Evaluation," in Logan Wilson and William A. Kolb, *Sociological Analysis*. New York: Harcourt, Brace & Co., 1949, pp. 464-473.

<sup>11</sup> William H. Sewell, *The Construction and Standardization of a Scale for the Measurement of the Socio-economic Status of Oklahoma Farm Families*, Oklahoma A. & M. Agricultural Experimental Station, 1940 (Technical Bulletin No. 9).

<sup>12</sup> Louis Guttman, "A Review of Chapin's Social Status Scale," *American Sociological Review*, VIII, 3 (June, 1943), 362-369.

<sup>13</sup> C. Wright Mills, "The Middle Classes in Middle-Sized Cities," *American Sociological Review*, 10 (April, 1945), 42-449.

<sup>14</sup> Kingsley Davis, *Human Society*. New York: Macmillan, 1949, pp. 91-96.

tige and esteem values associated with an indefinite number of statuses. If, however, recognition of the different nature of positional values on the local level from those values on the mass society level is desired, the formula requires some elaboration, such as the following:

$$SP = f(P_1, P_2 \dots P_i), f'(E_1, E_2 \dots E_i), f''(p_1, p_2 \dots p_i), f'''(e_1, e_2 \dots e_j)$$

in which the symbols represent the prestiges and esteems as before but in this instance the upper case letters stand for the values in the context of the mass society and the lower case for local community values.

The empirical test of such a formula is not yet possible, because three very difficult values must be supplied, that is, the number and value of prestiges, the number and value of esteems, and the nature of the functions which unite them into the single expression of social position. Its utility is primarily making explicit one manner in which the complexities of stratification may be viewed as a unified whole.

In one sense this approach is the opposite of solution by correlation. In the latter case a large body of empirical data have been gathered with, however, a rather unsatisfactory theoretical framework; while in role-status analysis a satisfactory body of theory is presented, but one which makes empirical testing difficult.

**B. Community Reputational Analysis.** The assumption underlying this approach is that the separate orders of stratification all contribute to one over-all status system, and that this system finds its expression in a graded series of substantive social classes. Because these classes include "social honor" as a basis of judgment, they exist only within the local community. Warner puts the first part of the assumption this way: "... societies must have rank orders to perform certain functions necessary for group survival. . . . When societies are complex and service large populations they always possess some kind of status system which by its own values places people in higher and lower positions."<sup>18</sup> The second part of the assumption

tion, that is, that social classes are found on the local community level, can be seen in the definition of social class given by Allison Davis: "The crucial tests of class position are certainly the same all over America, in both white and Negro society. People are of the same class when they may normally (1) eat or drink together as a social ritual, (2) freely visit one another's family, (3) talk together intimately in a social clique, or (4) have cross-sexual access to one another outside of the kinship group. These relationships are the basic privileges of class equals, and it is to limit the range of such contacts that the class pressures are exerted."<sup>19</sup>

This definition of social class is very closely related to Weber's concept of the status group, placed upon the local community level, and also to one element in role-status analysis.

The actual method of locating social classes employed in this approach is most fully stated in Volume I of the *Yankee City Series*<sup>17</sup> and in *Elmtown's Youth*.<sup>18</sup> A shorter method of approximating the classes in the community is described in a more recent volume by Warner in which six techniques are outlined.<sup>19</sup>

The reason for the development of the simplified technique, according to Warner, is that the original method is too expensive, time consuming, difficult to communicate explicitly, and imprecise for adequate comparative study of communities. This concern over the comparative study of communities indicates that one of Warner's aims is to go beyond the local community by securing values more broadly applicable in mass society. This indicates a turn in Warner's thinking allowing for the possible integration of his work with other approaches.

The shorter method of community reputa-

<sup>17</sup> Allison Davis, *Children of Bondage*, American Council on Education, 1940, p. 201.

<sup>18</sup> W. Lloyd Warner and Paul S. Lunt, *The Social Life of a Modern Community*, Vol. I, "Yankee City Series," New Haven: Yale University Press, 1941.

<sup>19</sup> A. B. Hollingshead, *Elmtown's Youth*. New York: John Wiley & Sons, 1949.

<sup>20</sup> W. Lloyd Warner, *Social Class in America*.

<sup>18</sup> W. Lloyd Warner, Marchia Meeker, Kenneth Eells, *Social Class in America*, p. 8.

tional analysis is based upon the following techniques:

1. *Rating by Matched Agreements.* This technique involves two steps: (a) securing the opinion of a group of informants as to the number and names of classes recognized in the community, and (b) the assignment of class statuses to actual persons within that community.

2. *Rating by Symbolic Placement.* In this method an individual is assigned a class position on the basis of symbolic reference made to him by the informants. These symbolic statements will include such things as (a) structural-family, social or clique terms, (b) regional or area terms, and (c) trait characterized, derogatory or eulogistic phrases.

3. *Rating by Status Reputation.* This assigns status by virtue of the reputation an individual has in the mind of the informant as a result of engaging in activities or possessing certain traits which have a definite class value.

4. *Rating by Comparison.* Here an individual is placed by a judgment on the part of the informant that he is superior, equal or inferior to someone else whose position is already known.

5. *Rating by Simple Assignment to a Class.* Class position is estimated in this instance by a simple statement of class position by the informant.

6. *Rating by Institutional Membership.* Class position is ascribed by the informant through reference to participation in cliques, churches and associations.<sup>20</sup>

This shorter method of class analysis is termed the method of Evaluated Participation, known familiarly as EP. There is little indication that this technique will contribute anything to increasing the cross-community comparability of Warner's earlier methods. The EP is still basically a function of the local community even though it does include the effects of all three of the institutional matrices of stratification. From the EP, however, Warner does move on toward indexes applicable throughout the larger society. This method, then, should not be considered as a part of the community reputational approach but rather as an attempt at

methodological and theoretical extension beyond the limits of community reputation.

3. *The Relationship Between Community Reputational Analysis and Solution by Correlation.* The EP, in this analysis, was used as the criterion of validity of the simpler mode of analysis which Warner terms the Index of Status Characteristics, hereafter referred to as the ISC. The ISC was originally composed of six items which were transformed into a composite scale of a type quite similar to those discussed earlier in this paper. The elements utilized were as follows: occupation, amount of income, source of income, house type, dwelling area, and education. The zero order of coefficients of correlation between each of these and the EP of the Jonesville sample ranged from .78 to .91 and the total ISC reached .97.<sup>21</sup> Since so high a value could scarcely be increased, simplification of the index provided the next task. This was achieved by the process of weighting the individual indexes with the value of their respective *b*'s as found in the multiple regression equation, between them and the EP. Items were then eliminated until the optimum in simplicity in combination with predictive value was achieved. The outcome of this was an index composed of occupation, source of income, house type, and dwelling area. The multiple correlation of these items with the EP reached .972.<sup>22</sup> It is not apparent why a still simpler method was not used, inasmuch as three characteristics, also dropping out either source of income or dwelling area, still produce a multiple coefficient of .964 and .966 respectively, which are certainly not measurably below the coefficient for the four-item scale.<sup>23</sup> In fact, occupation alone has a zero order coefficient of correlation with the EP of .91. From the point of view of sheer scientific parsimony one might be inclined to feel that occupation alone yields an index of stratification sufficiently accurate for most practical purposes.

If, however, it is felt important to raise

<sup>20</sup> Paraphrased from W. Lloyd Warner, *Social Class in America*, pp. 37-38. Attention may be called here to the fact that the six methods of placing an individual are not so much separate methods, or techniques, as they are probing questions to secure an accurate answer from the informant.

<sup>21</sup> W. Lloyd Warner, *Social Class in America*, p. 168.

<sup>22</sup> W. Lloyd Warner, *Social Class in America*, p. 168.

<sup>23</sup> *Ibid.*

the coefficient from .91 to, let us say, a level of .95, it is still possible to deduce from these data an index which would reach this level and yet be applicable in cross-community comparisons. As the four-item ISC now stands, it is composed of two items whose value can be shown to be generalizable—source of income, and occupation. With respect to the former we have commonsense agreement that source of income is constant as a value throughout our society, and with respect to the latter we may refer to the NORC study cited earlier.<sup>24</sup> The findings in this case indicate an extraordinary amount of agreement on the prestige value of occupations, regardless of region or size of community.

The other two components of the ISC, *i.e.*, house type and dwelling area, are expressed in terms of the local community and this impairs their value as cross-community indexes. It has become accepted as a general principle by ecologists that rental values or rental equivalents are stable and reliable indexes of both the quality of housing and the quality of neighborhood. The suggestion, therefore, would seem to be inevitable that a combination of occupation, source of income and rental value would allow a correlation with the EP of approximately .95. They would have the additional value of rating individuals not only in terms which would be meaningful in the local community but which would also be meaningful in cross-community comparisons within the mass society. It is, of course, true that varying population pressures and other factors produce a situation in which comparable residential properties are valued at differential rates in various regions and among various sizes of communities. A correction for this should, however, not be too difficult a problem to solve.

In short, Warner's recent work has opened up the possibilities of greater agreement in the field of stratification through its indication of the validity of a multiple factor or even a single factor index based upon values which can be applied both within the local

community and the mass society. What is being suggested here is that a prestige scale of occupations plus a simple rental index seems adequate to replace the laborious and expensive technique of community reputational analysis. This fact also indicates the likelihood that while class positions exist in the local community, they are local expressions of determinants in the mass society. This is not, however, to imply that the classes stand simply for economic level. An occupational scale based on prestige allows for variation in terms of other than financial rewards. This point has been made in some detail in an earlier paper.<sup>25</sup>

Such a hypothesis could be checked rather simply from available data. If the social class materials available in the studies mentioned were checked by the application of a simplified ISC, and the differences between this analysis and the original analysis in terms of community reputational classes were assessed, we should then be in a position to know what *net loss*, if any, is consequent upon the use of the simpler mode. If a loss is found in terms of the consequences of class position, that is, if the consequences in differential life chances of positions determined by the two methods are different, then detailed research could illuminate the differences between class on the local level (presumably class values on the national level plus idiosyncratic clique values) and class as it is determined throughout the mass society. If no differences appear then a simple measure such as that indicated could easily be put into relatively standard use.

Moreover, if the application of the two methods of classifying did not yield substantial differences the point would be made that solution by summation and solution by correlation yield substantially the same results. At this point the question as to the substantive or classificatory nature of class could be investigated, and perhaps even the question of the objective versus the subjective determination of class position be given at least an approximate answer.

<sup>25</sup> Paul K. Hatt, "Occupation and Stratification," forthcoming in *The American Journal of Sociology*.

<sup>24</sup> Cecil C. North and Paul K. Hatt, *op. cit.*

## MAX WEBER ON SOCIAL STRATIFICATION: A CRITIQUE

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PERHAPS no writer on the general subject of "class," social status, and caste has been cited by American students with such finality as Max Weber. And yet, Weber's conclusions have seldom been quoted directly as illuminants in theoretical studies or as hypotheses in empirical research. It may be useful, therefore, to examine with some care the nature of the contributions of this author. At this time, moreover, such an analysis seems particularly opportune for the pith of Weber's thinking on "social stratification" has recently been made available to the general English reader.<sup>1</sup> It should be remarked, however, that even in these excellent translations one is confronted with the exceedingly infelicitous style of the author.

### CLASS

Weber conceives of "class" in a somewhat Marxian sense of an economic interest group and as a function of the "markets"—not as a social-status group. But his analysis is not Marxian, for he emphasizes economic distribution instead of production. "A class," he asserts, "is any group of persons occupying the same class [situation];"<sup>2</sup> and the "class situation" develops within the "economic order."<sup>3</sup> "The economic order is . . .

merely the way in which economic goods and services are distributed and used."<sup>4</sup> The class situation itself refers essentially to the extent of control over goods and the possibilities of their exploitation.<sup>5</sup> Thus "property and lack of property are . . . the basic categories of all class situations."<sup>6</sup>

But Weber further defines class in a more processual context as a function of the market. Accordingly he maintains:

It is the most elemental economic fact that the way in which the disposition over material property is distributed among a plurality of people, meeting competitively in the market for the purposes of exchange, in itself creates specific life chances. According to the law of marginal utility this mode of distribution excludes the non-owners from competing for highly valued goods; it favors the owners and, in fact, gives to them a monopoly to acquire such goods. . . . always this is the generic connotation of the concept class: that the kind of chance in the market is the decisive moment which presents a common condition for the individual's fate. . . . [Therefore] we may speak of a class when (1) a number of people have in common a specific causal component of their life chances, in so far as (2) this component is represented exclusively by economic interests in the possession of goods and opportunities for income, and (3) is represented under the conditions of

<sup>1</sup>Hans H. Gerth and C. Wright Mills, *From Max Weber: Essays in Sociology*, New York, 1946; Max Weber, *The Theory of Social and Economic Organization*, trans. by A. M. Henderson and Talcott Parsons, New York, 1947. The source of this review is mainly two sections in Weber's *Wirtschaft und Gesellschaft*: "Stände und Klassen," Vol. I, pp. 177-180 and "Klasse, Stand, Parteien," Vol. II, pp. 631-640. We shall refer to the translations as *Essays* and *The Theory*.

<sup>2</sup>Henderson and Parsons, *The Theory*, p. 424. The term class "situation" used by Gerth and Mills seems to represent Weber's meaning more nearly than class "status," the rendition of Henderson and Parsons.

<sup>3</sup>*Essays*, p. 194.

<sup>4</sup>*Ibid.*, p. 181.

<sup>5</sup>Stated more fully, the class situation is the "typical probability" that an individual or group will possess "a given state of (a) provision with goods, (b) external conditions of life and (c) subjective satisfaction or frustration." This probability defines class situation only in so far as it is dependent upon "the kind and extent of control or lack of it which the individual has over goods or services and existing possibilities of their exploitation. . . . In principle control over different combinations of consumers' goods, means of production, investments . . . constitutes class [situations] which are different with each variation and combination." *The Theory*, pp. 424-425.

<sup>6</sup>*Essays*, p. 182.

the commodity or labor markets. . . . Class situation, in this sense, ultimately 'market situation.'<sup>7</sup>

In a clear emphasis upon the determining agency of economic distribution our author says: ". . . the factor that creates class is unambiguously economic interest, and indeed, only those interests involved in the existence of the market."<sup>8</sup>

#### TYPOLOGY OF CLASSES

This point is elaborated in a typology of classes. Three types of classes are distinguished:<sup>9</sup> (a) the *property class* whose class [situation] "is primarily determined by differentiation of property holdings;" (b) the *acquisition class* whose class situation is primarily determined by its "opportunity for the exploitation of services on the market;" and (c) the social class whose "structure is composed of [a] plurality of class [situations] between which an interchange of individuals on a personal basis . . . is readily possible. . . . Only persons who are completely unskilled, without property and dependent on employment . . . are in a strictly identical class [situation]. Transitions from one class [situation] to another vary greatly in fluidity. . . . Hence the unity of the social class is highly relative and variable."

Two of these three classes, the property class and the acquisition class, are analyzed further on the basis of "privilege." Each is assumed to be either negatively or positively privileged.<sup>10</sup>

Thus "*positively privileged property classes* live from property income. . . . The primary significance of a positively privileged property class lies" in the fact that it is able to monopolize certain economic utilities such as "the purchase of high-priced consumers' goods," "the sale of economic goods," "opportunities to accumulate capital," and "the privilege of socially advantageous kinds of education."

The *negatively privileged property classes*

are those without property, who are "unfree" and the "objects of ownership;" "they are 'outcasts,' that is, 'proletarians' in the sense meant in antiquity, debtor classes, and the poor."

The *middle privileged property classes* include both negatively and positively privileged property class. Thus Weber explains: "This term includes groups who have all sorts of property, or of marketable abilities through training, who are in a position to draw their support from these sources. . . . Entrepreneurs are in this category by virtue of essentially positive privileges; proletarians, by virtue of negative privileges."

The same scheme is employed for a description of the "acquisition classes." The *positively privileged acquisition classes* are able to attain "a monopoly in the management of productive enterprises" and "to insure the security of its economic position by exercising influence on the economic policy of political bodies. . . . The members of positively privileged acquisition classes are typically entrepreneurs" such as, merchants, industrialists, bankers, and financiers.

The *negatively privileged acquisition classes* "are workers of the various principal types. They may be roughly classified as skilled, semi-skilled, and unskilled."

The *middle privileged acquisition classes* include "independent peasants and craftsmen. . . ." They "often" include also "officials, whether they are in public or private employment, the liberal professions, and workers with exceptional monopolistic assets or positions."

As we have mentioned above, Weber does not analyze "social classes" according to "privilege"; he simply gives examples of these classes. Hence "examples of social classes are: the working class as a whole, the lower middle classes [or petite bourgeoisie], the intelligentsia . . . [and] the classes occupying a privileged position through property and education."

#### CLASS ACTION

Classes may act concertedly in their own interest but there is a significant distinction in the processes of class action. Weber recog-

<sup>7</sup> *Essays*, pp. 181-182 *passim*.

<sup>8</sup> *Ibid.*, p. 183.

<sup>9</sup> *The Theory*, pp. 424-425.

<sup>10</sup> *Ibid.*, pp. 425-427.

<sup>11</sup> *Essays*

<sup>12</sup> *Ibid.*

<sup>13</sup> *The*

<sup>14</sup> *Essays*

<sup>15</sup> *Ibid.*

<sup>16</sup> *Ibid.*

nizes "communal class action" or "action which is oriented to the feeling of the actors that they belong together" and "societal class action" or action which "is oriented to a rationally motivated adjustment of interests."<sup>11</sup> However, "the rise of societal or even communal action from a common class situation is by no means a universal phenomenon."<sup>12</sup> Indeed "it is not uncommon for very strongly privileged property classes, such as slaveowners, to exist side by side with such far less privileged groups as peasants and outcasts without any class struggle. There may even be ties of solidarity between privileged property classes and unfree elements."<sup>13</sup>

Regardless then of "however different life chances may be, this fact in itself . . . by no means gives birth to class action."<sup>14</sup> Two factors are necessary for the development of class action: (a) a peculiar cultural conditioning of the classes and (b) a recognition of the possibilities of success in the class situation. Says our author:

The fact of being conditioned and the results of the class situation must be distinctly recognizable. For only then the contrast of life chances can be felt not as an absolutely given fact to be accepted, but as a resultant from either (1) the given distribution of property, or (2) the structure of the concrete economic order. It is only then that people may react against the class structure not only through acts of intermittent and irrational protest, but in the form of rational association.<sup>15</sup>

Class situations involving class action concerning the distribution of property have been known "in urban centers of antiquity and during the Middle Ages"; while "the most important historical example" involving the structure of the economic order "is the class situation of the modern proletariat."<sup>16</sup>

The class situation may result in mass action, but "often merely an amorphous com-

munal action emerges. For example, the 'murmuring' of the workers known in ancient oriental ethics: the moral disapproval of the work-master's conduct, which in its practical significance was probably equivalent to an increasingly typical phenomenon of precisely the latest industrial development, namely, the 'slow down' . . . of laborers by . . . tacit agreement."<sup>17</sup>

It is possible, also, to observe three historical stages in the rise of class struggle. Thus Weber points out: "The great shift which has been going on continuously in the past and up to our times, may be summarized . . . : the struggle . . . has progressively shifted from consumption credit toward, first, competitive struggles in the commodity market and, then, toward price wars in the labor market. The class struggles of antiquity . . . were initially carried on by indebted peasants, and perhaps also by artisans threatened by debt bondage. . . . The propertyless of antiquity and the Middle Ages protested against monopolies. . . . Today the central issue is the determination of the price of labor."<sup>18</sup>

#### SOCIAL STATUS

Social status is distinguished from "class" by the fundamental fact that "class" is a function of the economic order, while "the place of 'status groups' is within the social order, that is, within the sphere of the distribution of honor."<sup>19</sup> Accordingly Weber asserts ". . . we wish to designate as 'status situation' every typical component of the life fate of men that is determined by a specific, positive or negative, social estimation of honor."<sup>20</sup> "In content, status honor is normally expressed by the fact that above all else a specific *style of life* can be expected from those who wish to belong to the

<sup>11</sup> *Ibid.*, pp. 83-84.

<sup>12</sup> *Ibid.*, pp. 85-86.

<sup>13</sup> *Ibid.*, p. 194.

<sup>20</sup> *Ibid.*, pp. 86-87. In another context the idea is put thus: "social status" refers to an "effective claim to positive or negative privilege with respect to social prestige [honor] so far as it rests on one or more of the following bases: mode of living, a formal process of education . . . or on the prestige of birth, or of an occupation." *The Theory*, p. 428.

<sup>11</sup> *Essays*, p. 183.

<sup>12</sup> *Ibid.*

<sup>13</sup> *The Theory*, pp. 425-426.

<sup>14</sup> *Essays*, p. 184.

<sup>15</sup> *Ibid.*, p. 184.

<sup>16</sup> *Ibid.*

circle."<sup>21</sup> Distinguishing further between "class" and status it is explained "... that 'classes' are stratified according to their relations to the production and acquisition of goods; whereas 'status groups' are stratified according to the principles of their *consumption* of goods as represented by special styles of life."<sup>22</sup>

Weber seems to differentiate between social status and social stratification. Thus "a social *stratum* is a plurality of individuals who, within a larger group, enjoy a particular kind and level of [honor] by virtue of their position and possibly also claim certain special monopolies." Distinct social strata are based upon "a peculiar style of life including particularly the type of occupation pursued," hereditary charisma, and "the appropriation of political or hierocratic authority as a monopoly. . . ."<sup>23</sup> Social strata are not a characteristic of modern urban civilization for "social strata develop and subsist most readily where economic organization is of a monopolistic and liturgical character and where the economic needs of corporate groups are met on a feudal or patrimonial basis."<sup>24</sup>

Our author conceives of the social order not as moving from a condition of stratification to that of atomized social status but *vice versa*. Even the United States is assumed to be evolving social "stratification by 'status groups' on the basis of conventional styles of life."<sup>25</sup> In principle: "the development of status is essentially a question of stratification resting upon usurpation. Such usurpation is the normal origin of all status honor. But the road from this purely conventional situation to legal privilege, positive or negative, is easily traveled as soon as a certain stratification of the social order has in fact been 'lived in' and has achieved stability by virtue of a *stable distribution of economic power*."<sup>26</sup>

<sup>21</sup> *Essays*, p. 187. Italics added.

<sup>22</sup> *Ibid.*, p. 193.

<sup>23</sup> *The Theory*, pp. 428-429.

<sup>24</sup> *Ibid.*, p. 429.

<sup>25</sup> *Essays*, p. 188.

<sup>26</sup> *Ibid.* Italics added. Weber emphasizes the idea that status groups tend increasingly to form social strata. Says he: "With an increased inclosure of the status group, the conventional preferential

#### CASTE

Status groups that have become social strata may persist in their exclusiveness until they evolve into castes. In explanation of this our author observes: "Where the consequences have been realized to their full extent, the status group evolves into a closed 'caste.' Status distinctions are then guaranteed not merely by conventions and laws, but also by *rituals*."<sup>27</sup> Taking Brahmanic India as the norm, it is maintained further that "this occurs in such a way that every physical contact with a member of any caste that is considered to be 'lower' by the members of a 'higher' caste is considered as making for ritualistic impurity. . . ."<sup>28</sup>

But the transformation into castes ordinarily occurs only when there are underlying "ethnic" differences. "The 'caste' is, indeed, the normal form in which ethnic communities usually live side by side in a 'societalized' manner. These ethnic communities believe in blood relationship and exclude exogamous marriage and social intercourse."<sup>29</sup> On this point it is necessary to observe Weber's reasoning closely:

A "status" segregation grown into a "caste" differs in its structure from a mere "ethnic" segregation: the caste structure transforms the horizontal and unconnected coexistences of ethnically segregated groups into a vertical social system of super- and subordination . . . ethnic coexistences condition a mutual repulsion and disdain but allow each ethnic community to consider its own honor as the highest one; the caste structure brings about a social subordination and an acknowledgment of "more honor" in favor of the privileged caste or status groups.

opportunities for special employment grow into a legal monopoly of special offices for the members. Certain goods become objects for the monopolization by status groups. In typical fashion these include 'entailed estates' and frequently also the possessions of serfs or bondsmen and, finally, special trades. This monopolization occurs positively when the status group is exclusively entitled to own and to manage them; and negatively when . . . the status group must *not* own and manage them."

*Essays*, p. 191.

<sup>27</sup> *Ibid.*

<sup>28</sup> *Ibid.*, pp. 188-189.

<sup>29</sup> *Ibid.*, p. 189.

This is due to the fact that in the caste structure ethnic distinctions . . . have become "functional" distinctions.<sup>30</sup>

The Jews, "a pariah people," are considered the typical example of an ethnic caste.

#### AN ESTIMATE

In his studied attempt to deal conceptually with social differentiation Max Weber tends to universalize his meanings. The concepts class, social status, and caste are hardly restricted in time and place. There is also a marked feeling for dichotomization rather than gradation, and for generalizations from individual cases.

It seems to us that there is a crucial fallacy in the author's conception of "class" as being determined essentially by "market situation." It is not only a non-dynamic approach but also a highly abstract one. And for this reason Weber almost never refers his concept to non-market societies, while he illustrates "class action" primarily as struggles within social systems rather than between social systems.

Moreover, his typology of class as "property," "acquisition" and "social" seems to be made to range over different social systems in an unsystematic way, with illustrations derived practically at convenience. The amorphous "social class" does not appear in his discussion of social action. The description of the "classes" according to "privilege" implies distinct social systems and yet they are presumed to be correlated. For example, the concepts property class and acquisition class broken down according to positive and negative privilege cannot be applied to any single society.

It appears doubtful, therefore, whether this analysis of class can have any considerable use either as suggestions for empirical research or as postulates in theoretical

studies. It should be recognized, however, that Weber's distinction between "communal" and "societal" class action is a useful concept in understanding the process of class struggles.

Weber's recognition of the difference between "class" and social status is well taken; however, this fact in itself is not original with him. In the analysis there are decisive shortcomings. The method is deductive and universalistic. There is skewed emphasis on the limited possibilities of social status as being a peculiar attribute of high-status groups. Indeed, the application of such concepts as "positive" and "negative privilege" to the whole status gradient in modern society is clearly misleading. There is no definitive description of social status in the social context of modern urban society as distinct from, say, social status in a feudal society. However, he does speak of "social strata" as developing most readily under feudalism.

His reasoning that social status by a process of "usurpation" develops into exclusive strata and then into castes is obviously specious. As we have attempted to show in another context this idea misconstrues the basis of a caste society. Weber becomes further involved when he accepts the popular notion that "ethnic" relations are the congealing force in the formation of caste—to say nothing of the problems involved in demonstrating his conclusion that in the caste system "ethnic distinctions . . . have become 'functional' distinctions." That the Jews in Western society are defined as constituting a caste is indicative furthermore, of the faulty possibilities of the approach.

There are indeed many glints of light in Weber's discussion of "social stratification"; but it seems to us it is too generalized and inconsistent to be of any considerable value as a source of fundamental suggestions in understanding the phenomena.

<sup>30</sup> *Ibid.*

## REGIONAL DIFFERENCES IN VERTICAL MOBILITY IN A HIGH-STATUS OCCUPATION\*

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THE HISTORICAL pattern of settlement of the various regions of the United States presents a number of research opportunities to students of stratification. In the westward flow of migration, appreciable time intervals often separated the founding of communities in the several areas. One might anticipate, as a result, certain variations in "maturity" of institutions or in rigidity of the class system between regions. Ideally, these variations should take the form of structural and functional gradients of many sorts. In the stratification system, for example, one might expect recency of settlement to be associated with declining intensity of class consciousness, diminishing evidence of cleavage between strata, decreasingly clear definition of the criteria of status, and rising rates of vertical social mobility.

Such trends appear to be reflected widely in the attitude systems of members of this society. They are evident in the character of popular response to the exhortation, "Go West, young man," and in the common belief that respect for inherited status is lowest in the newer regions of the country. On the level of scientific generalizations they are occasionally foreshadowed in various studies in social stratification.<sup>1</sup> These gradients probably are not simple functions of distance westward from the areas of original settlement, nor of time of first settlement of the

separate regions. Subsequent migrations, cultural or racial heterogeneity of the population, variations in natural resources, and unique trends in economic development will have introduced complications of many kinds. But wherever discernible, the underlying gradients should reflect in some manner the history of the developmental processes, and a study of these gradients should furnish new data for the analyst of stratification in this society.

This paper is concerned with regional differences in vertical occupational mobility of certain members of the legal profession—the independent or self-employed attorney. It is a report on materials gathered in 1947 and 1948 in several cities ranging from the Northeast to the Southwest. The project arose from an interest in the growing consensus that American society is becoming increasingly stratified,<sup>2</sup> and was motivated largely by a desire to bring new evidence to bear on the problem. The approach followed here is the determination and comparison of rates of occupational mobility in several geographical areas. This procedure is based on the assumption that regional rates will provide significant clues to social as well as occupational stratification trends in the contemporary period.

### THE PROBLEM

The anticipation of differences in rates of vertical mobility in communities of different chronological age rests on a number of assumptions or hypotheses. Principal among these are (1) that societal structures have features whose extent is restricted to particu-

\*This is an extension of a paper read at the 1948 meetings of the Ohio Valley Sociological Society at Columbus, Ohio.

<sup>1</sup>A comparison of the reports on Yankee City and Middletown, for example, reveals differences that are possible values in a continuum of maturity. One may cite the greater ideological independence of workers and the clearer delineation of class structure in the eastern community. To what extent these differences reflect varying objectives, techniques, or values of the two research groups is not a major concern here.

<sup>2</sup>This seems to be a valid generalization of the literature on the subject, particularly the relevant materials in the writings of the Lynds, Taussig and Joslyn, Warner and associates, Withers, Mills, and the forthcoming volume by Paul Hatt and Cecil North.

lar localities or regions, (2) that one of the local variables is rigidity of status systems, and (3) that rigidity of structure is related in a determinate way to the chronological age of the community.

The first two of these conditions may be assumed without too great difficulty.<sup>3</sup> The third condition, association between the age of a community and its social maturity, can hardly be taken as self-evident, however. In support of such a hypothesis one may cite the persistent belief that time works on the side of rigidity in *new* social structures.<sup>4</sup> Presumably this tendency results from the operation of several basic processes, variously defined as "the hardening of traditions,"<sup>5</sup> "functional necessity,"<sup>6</sup> or the like. The effect becomes apparent after either the reorganization of existing structures or the creation of entirely new structures. Within the latter type of event is included not only the appearance of new systems within an established order but also the settlement of virgin territory.

The connection between rigidity of structure and rates of vertical mobility is essentially a semantic one, and to have made a case for regional variations in rigidity is to have implied regional differences in rates of mobility. The problem for the research worker at this stage is the investigation of evidence for the existence of such rate differences, along with a study of the character of any that may exist.

#### THE INVESTIGATION

The plan of this study has been that of (1) determining the mean rise of regional

samples of workers above their status origins, and (2) analyzing the differences between the regional means. To keep the project within the available resources, two major delimitations were made; informants were selected from a single occupation, and "status origin" was treated as a quality with a single dimension—the "principal occupation" of the informant's father. In these terms, vertical mobility consists in changes in occupational status between father and son. Rates of vertical mobility may then be defined either as occupational-origin means for groups of informants, or as means of occupational-status differences between groups of informants and their fathers.

It is evident that the above design makes this a study of occupational mobility, not social mobility, although the latter was the motivating interest in the inquiry. The decision to use occupational status as the basic datum followed the appearance of an occupational rating scale that permitted quantification of the statuses in question. This was the scale of occupational prestige constructed by Paul Hatt and Cecil North in collaboration with the National Opinion Research Center.<sup>7</sup> There are obviously distinct advantages in handling both inter-generational and contemporary occupational differences as scalar items rather than as qualitative data. While these advantages do not translate occupational data into data on class mobility, they represent some gain over previous techniques for analyzing occupational mobility.

The informants in this study were 261 independent attorneys located in six middle-sized cities. Professionals were chosen as subjects in the hope that they might be more sensitive indicators of mobility than other categories of workers. This was visualized in terms of larger mean differences between status origins and eventual achieved status, and also in terms of greater intensity of motivation. Limitations of time led to concentration on one of the most accessible of professional workers—the attorney—and

<sup>3</sup>Support for these assumptions may be found, for example, in W. Lloyd Warner, Marchia Meeker and Kenneth Eells, *Social Class in America*, Chicago: Science Research Associates, Inc., 1949, pp. 11-21, 23.

<sup>4</sup>One theory of the dynamics involved here, together with their probable effects on American society, is discussed in Charles Horton Cooley, *Social Organization*, New York: Charles Scribner's Sons, 1925, Ch. 10.

<sup>5</sup>Morris Ginsberg, "Class Consciousness," *Encyclopedia of the Social Sciences*, Vol. II.

<sup>6</sup>Kingsley Davis and Wilbert E. Moore, "Some Principles of Stratification," *American Sociological Review*, 10 (April, 1945), 242-249.

<sup>7</sup>Paul K. Hatt and Cecil C. North, an unpublished study; also National Opinion Research Center, Study No. 2044, Denver, 1947.

within that group the selection was narrowed still further to independent or self-employed attorneys.

Three geographical regions contributed to the total sample. Massachusetts, Ohio, and Texas were taken as roughly representative of historically different areas of the country. Within each of these states two cities between 150,000 and 350,000 in population were chosen for representativeness of the occupational distribution of urban males. The cities most satisfactory by this test were Worcester, Springfield, Columbus, Toledo, Houston, and Fort Worth. Despite the deviation from strict regional or state representativeness, communities of this size were preferred for several reasons. They were large enough to insure the presence of the major processes relevant to stratification, yet not so large as to emphasize certain legal specializations found in great metropolitan centers. The size, furthermore, was not beyond the range of relative economy and ease in sampling.

Informants were selected by periodic sampling from classified sections of telephone directories. In each city this source proved to be the most current listing of the group to be sampled. An initial goal of one hundred informants per region was set, with about half the number to come from each city, but pressure of time led to scaling down of the quota in the Southwest to approximately sixty persons.

A claim of representativeness for the sample obviously has different validities for the different populations involved. The validity is greatest for the city populations and least for the regional populations. The fact that no strict claim can be made to precise regional sampling does not appear to be crucial for this study, however. More important is the fact that the same selection procedure was followed in the several areas, so that the samples are generally comparable, particularly as regards their representing their respective areas equally well.

Informants were interviewed at their places of work, with responses being entered into schedules at the time of interview. The questions were primarily factual, referring

mainly to items in the occupational and educational histories of informants, their fathers, and their brothers. Additional questions related to nativity of parents, place of rearing and education of informants, religious affiliations, and a number of matters of opinion. These included initial motivations toward the profession, obstacles or aids to education and establishment of a practice, and beliefs concerning stratification trends within the profession. Refusals varied from about ten per cent in the Massachusetts cities to about five per cent in the Ohio and Texas cities. The available data on individuals declining to participate indicate that there was no marked bias introduced by their failure to respond.

#### INFORMANTS' OCCUPATIONAL ORIGINS BY REGION

The distribution of informants' origins by occupational grouping of father and by region is presented in Table 1. The groupings are essentially those of the U. S. Bureau of the Census, with some of the major categories omitted because of the lack of informants from those origins.

A summary inspection of the above table discloses that informants come generally from higher occupational origins in regions to the west. This trend is particularly noticeable between the first and second regions. Between the second and third, conspicuous differences are found mainly in the higher proportions of farmer and white-collar origins and the lower proportions of laborer and craftsman origins. The large drop in percentage of proprietary and managerial origins and the constancy of origins in professional families between Midwest and Southwest constitute major aberrations from the trends established by the first two regions. This makes it unclear as to whether status origins in the Southwest are appreciably higher than in the intermediate region. It is evident, however, that occupational origins of independent attorneys are markedly lower in the Northeast than in the other two regions. With reference to vertical occupational and social mobility, these differences suggest that the higher rates of mobility are

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to be found in the older communities of the nation.

If the foregoing data are not to be merely suggestive, it is apparent that a more precise measure of occupational mobility is necessary. This greater precision is possible if occupational origins of informants are expressed in North-Hatt scale values rather than in the categories of Edwards\* or the Bureau of the Census. The North-Hatt scale ranks ninety well-known occupations in terms of numerical prestige ratings. These

study is to provide status-origin scores for informants through the assignment of numerical ratings to the fathers' occupations.<sup>9</sup> An informant whose father was a farmer, for example, has a status-origin score of 76, and one whose father was a carpenter, a score of 65. The difference between present occupational status of the informant—86 for the attorney—and his status origin can be stated as a numerical value which provides a measure of his mobility. Similarly, means of these differences for comparable groups

TABLE 1. INDEPENDENT ATTORNEYS' OCCUPATIONAL ORIGINS BY REGION

Father's occupational group	Northeast	Midwest	Southwest	
	No. and per cent	No. and per cent	No.	Per cent
Professional	16	26	15	25
Proprietary and managerial	39	45	23	38
Farmers and farm operators	4	13	13	21
Clerical and sales	7	4	7	11
Craftsmen and foremen	23	9	3	5
Operatives	1	1	—	—
Service workers	2	—	—	—
Laborers	8	2	—	—
Total	100	100	61	100

ratings were computed from evaluations made of the occupations by a national sample of the population aged 14 and over. United States Supreme Court Justice occupies top position on the scale with a score of 96; shoe-shiner, with a rating of 33, holds the bottom position. The occupations of machinist, welfare worker, and electrician carry the median score of 73. Both national and regional scores were computed for each occupation, although some items show no variation between regions, and most variations that appear are minor. As an example of regional differences in rating, the occupation of welfare worker is scored at 74, 73, 75, and 72 in the Northeast, the Midwest, the South, and the West, respectively.

The function of the scale in the present

in separate areas may be used as regional rates of vertical mobility. If, as occurs in this study, all the informants are members of the same occupational group, status-origin means themselves may be used as reciprocals of mobility rates.

Assignment of the same occupational-status value to all independent attorneys unquestionably ignores a number of differences in income, "social" origins, personality characteristics, and the like that help determine specific occupational statuses. It will

\*There are justifiable doubts as to the propriety of using the North-Hatt scale for rating occupations as of a generation ago. In extenuation, it may be remarked that the general uniformity of ratings between regions on this scale supports the assumption of a like uniformity through time. This assumption is further borne out by the remarkable agreement in rank order of occupations in the North-Hatt and Counts studies. See George S. Counts, "Social Status of Occupations: A Problem in Vocational Guidance," *School Review*, 33 (1925), 16-27.

<sup>9</sup>Alba M. Edwards, "A Social-Economic Grouping of the Gainful Workers in the United States," *Journal of the American Statistical Association*, 28 (1933), 377-387.

be assumed tentatively, however, that the amount of error involved in this procedure is relatively slight. An assumption of this sort is encouraged by the fact that in the Northeast, where the prestige of the profession should have been most seriously devalued by the influx of numerous individuals from low-status families and groups, the North-Hatt prestige rating for attorney is 88, or two points higher than the national rating, as well as two points higher than the rating for any other region.

INFORMANTS' STATUS-ORIGIN SCORES  
BY REGION

Table 2 is the distribution of informants' status origins, expressed as North-Hatt scale values, by region. Like the distribution of

TABLE 2. INDEPENDENT ATTORNEYS' STATUS-ORIGINS SCORES BY REGION

Status score	North- east	Mid- west	Southwest	
	No. and per cent	No. and per cent	No.	Per cent
90-94	4	1	3	5
85-89	11	24	11	18
80-84	5	6	6	10
75-79	24	45	31	50
70-74	24	5	1	2
65-69	11	13	7	12
60-64	10	2	2	3
55-59	—	2	—	—
50-54	4	1	—	—
45-49	7	1	—	—
Total	100	100	61	100
Mean	71.92	76.26	77.69	
S. D.	10.77	8.13	6.87	
C. R.	3.2	1.3		

cases by occupational grouping of fathers, these scores indicate a trend toward higher status origins in regions to the west. The critical ratios of the regional means signify probabilities of about one-tenth of one per cent and twenty per cent that the respective mean differences occurred by chance.

If present occupational status is compared with status origins, it appears that independ-

ent attorneys in the Northeast rose on the average 15.08 points above the occupational level of their fathers. The indices of rise for the Midwest and the Southwest are 9.74 and 8.31 respectively. The reliability of the differences between the occupational-rise means is essentially the same as for the differences between occupational-origin means.

To test the possibility that the observed differences between means are spurious, some potential sources of error were examined. The first was the possibility that the use of national rather than regional scores for determining means concealed a systematic bias in the form of regional variations in ratings. The effect of using regional ratings for occupational origins was investigated by computing means, standard deviations and critical ratios from the regional scores. The resulting means were 71.83 for the Northeast, 76.78 for the Midwest, and 78.70 for the Southwest. The corresponding standard deviations were 10.63, 8.66, and 6.93, respectively. The critical ratios became 3.6 for the first and second regions, and 1.6 for the second and third, signifying probabilities of about one-tenth of one per cent and eleven per cent, respectively, that the mean differences were chance. Whether these higher critical ratios are more realistic than the values derived from the national scores is a matter for further investigation.

A second potential source of spurious mean differences is the variation in occupational distribution of workers between regions in this country. The likelihood that members of the professions will come from the same status origins in different regions is obviously affected by the presence of disproportionate numbers of families within a particular status or occupational group in a given region. The most conspicuous difference in occupational distribution between regions in the United States is the rising proportion of workers engaged in farming in regions to the west. This trend is reflected in the data of this study as increasing proportions of informants coming from rural backgrounds in the Midwest and Southwest. It is interesting to note, however, that the prestige rating of farmers

in the regions where they are the most numerous is lower than the mean occupational origin of informants in those regions. This signifies that the most important deviation from occupational uniformity between regions has the effect of diminishing the difference between status-origin means. Holding the rural-origins factor constant, therefore, would improve the reliability of the regional differences in status origins of the sample. Similar effects are noticeable for other of the occupational categories, so the net result of correcting the means for regional differences in occupational distribution would apparently be to increase or leave unchanged the critical ratios arrived at above.

#### INTERPRETATION

The fact that independent attorneys appear to come from increasingly low status origins in an eastward direction is obviously at variance with the hypothesis that the more rigid structures and hence the lower rates of vertical mobility are to be found in the older regions of the country. This circumstance poses a number of questions. The first and most important concerns the validity of the major hypothesis—the notion of growing rigidity or increasing stratification in this society. The present informants, however, are hardly a crucial test of this hypothesis, representing as they do only a specialized portion of the occupational and class structure. Their chief importance lies less in a refutation of the hypothesis than in a demonstration of a method whereby it may be better tested. A caution of this sort is necessary because rigidity of the social system appears to be occupationally specific. As a result certain occupations remain unaffected despite a tendency toward increasing inheritance of other occupations. This might occur because of the tendency for some occupations to link more closely to one institution than another, and hence to stratify differently under varying courses of evolution in the several institutions.

A second question is that of the probable "causes" of the trend toward lower status origins in an eastward direction. Information

on this point is desirable because of its broader significance for stratification trends. Not only does it throw light on occupational inheritance in this and related occupations; it also may define the contributing factors in a way that permits generalization outside the occupational group.

There is little possibility of accounting for the mobility differences of independent attorneys by reference to differential birth rates or to selective migration of prospective attorneys. The mean number of sons born to high-status fathers in the Northeast sample is virtually identical with that for high-status fathers in the Midwest sample.<sup>10</sup> Moreover, birth rate differentials between the high- and low-status families in this sample are fairly constant between regions. The relatively high birth rates among high-status families in the two outlying regions appear to reflect the influence of religious and ethnic traditions on the one hand and the effect of rural backgrounds on the other.

Migration, like the differential birth rate, appears to play a negligible role in the determination of the regional means. In the city showing the highest in-migration of informants, Fort Worth, 84 per cent of the informants were natives of the state, and 92 per cent were natives of the region in which the state is located. If there is any discernible association between status origin of informant and direction of migration, it is that of somewhat higher origins with eastward movement.

Three possible explanations of the differences in status origin, or in vertical mobility, of the informants in this study are suggested by the data. First, there seem to be significant differences in accessibility of pre-professional and professional training between the several regions. Secondly, there is evidence for an appreciable variation in patterns of motivation by region, particu-

<sup>10</sup> For fathers having occupational-status ratings of 75 or higher, the mean number of sons is 2.19, 2.16, and 2.73 in the Northeast, Midwest, and Southwest samples, respectively. The corresponding values for fathers with occupational ratings below 75 are 2.79, 2.66, and 3.30.

larly as a result of considerable numbers of individuals living in or close to social marginality in certain regions. Thirdly, there is a possibility that the existence of alternative opportunities in the newer regions attracts individuals away from the channels leading toward professional training in the crucial years. The evidence for the importance of these three determinants of mobility is largely qualitative and partly conjectural, so a rigorous examination of their role is not possible here.<sup>11</sup> It may be instructive, however, to give them brief consideration.

The factor of access to education appears to favor individuals in the older communities, particularly in the number of schools that may be instrumental to a legal career within a given distance of the prospective recruit. This circumstance has motivational as well as economic significance. A number of informants reported that their decision on law as a career hinged largely on the fact that training for law was available in the community. In some cases the presence of the training facilities—quite often the ubiquitous night law school—appeared to function mainly as suggestion; in others its chief contribution was to bring professional training within financial reach. The advantage possessed by informants in the older regions is evident in the higher proportions receiving their legal education in night law schools, residing at home while in training, or financing their professional education unaided. Differential access of this sort is minimized somewhat by the lower tuition rates of the state universities of the Midwest and Southwest, but the balance is evidently on the side of the individual in the older communities.

Part of the explanation of the means trend undoubtedly lies in the stronger motivation of a substantial portion of persons in the Northeast toward professional careers. The high mobility—or, conversely, the low mean status origin—of this region appears to result largely from the presence in the popula-

tion of many second-generation immigrants. This group is distinguished by a drive for status improvement that contrasts markedly with the aspirations of comparable portions of the native stock. This is evident in the fact that over sixty per cent of the informants are of foreign or mixed parentage while of the population of Massachusetts, only 45 per cent are of foreign or mixed parentage.<sup>12</sup> The stronger drive of the second-generation informants was also attested by the opinions of the informants themselves. In discussing the personnel of the Massachusetts bar, many pointed to its shifting ethnic character, explaining the trend in terms of stronger ambitions of members of the various minority groups. There were frequent references to unusual pressures from parents or relatives desirous of a professional career—often specifically a legal career—for some member of the family. Since second-generation individuals start their careers at relatively low levels in the status pyramid, the effect of disproportionately high numbers of them entering a profession is to reduce the status-origin mean below that which would obtain for a population composed entirely of native stock.

Remarks about the role of alternative opportunities in reducing mobility into the professions in the newer regions must be largely inferential.<sup>13</sup> There are long-standing traditions that stress the superiority of these regions as areas of successful venture, particularly in enterprises that require little formal training. The recent history of the Southwest gives considerable point to this conception of the West as a place of opportunity. Although empirical evidence is lacking, it is logically plausible that the existence of a "bonanza" economy tends to draw off possible recruits for the professions, so that the low mobility rates of independ-

<sup>11</sup> U. S. Bureau of the Census, 1940.

<sup>12</sup> Some evidence on this point is contained in the *Fortune* Survey, June, 1940. In a report on "The Class of '40," it is observed that while only 2 per cent of male college seniors in the United States intend to go into business for themselves, 75 per cent or more of the seniors in two universities in the Southwest have this intention.

<sup>13</sup> An attempt will be made to deal with this problem in a forthcoming paper on stratification in the legal profession.

ent attorneys in the Southwest may be fundamentally related to the character of local industry. Economic differentials of other sorts may be operative also. It is possible that attorneys are more in demand in regions where business and industry are more mature, and where state laws are such as to require more careful scrutiny of the legal consequences of economic behavior. The data in this study, however, throw little light on the relation of variable demand to mobility rate differentials.

#### SUMMARY AND CONCLUSIONS

A comparison of occupational origins of independent attorneys in three geographical regions discloses a fairly reliable tendency for members of this group to come from progressively higher origins to the west. This trend is most pronounced between the Northeast, and the Midwest, largely because of the effect of the highly-mobile second-generation

immigrant on status-origin means in the Northeast. The significant factors underlying the trend seem to be (1) the greater accessibility of education, both pre-legal and professional, in the older regions, (2) the higher proportions of second-generation immigrants in the older regions, and (3) the absence from the older regions of a strong sense of opportunity in the basic industries and business.

The downward gradient of occupational origins in a west-to-east direction suggests that there has been decreasing stratification of this profession—in the sense that entrance from any lower occupational stratum has become easier—in recent decades. Since the broadest factors in the process appear to be the decline of the entrepreneur and the democratization of educational patterns, it is probable that the professions in general are undergoing decreasing stratification at the present time.

### DIFFERENTIALS IN DIVORCE BY DURATION OF MARRIAGE AND SIZE OF FAMILY\*

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THE WAR and postwar boom in divorce in the United States has released a torrent of popular articles on what is right and what is wrong with American marriages. A recurrent theme in most of these articles is the effect of the rising tide of divorce on children and on the future stability of the American family. And yet, statistical documentation is woefully inadequate. This is especially true with regard to children affected by divorce, since few data have been available since 1932, and even those for earlier years were very limited in scope.

There is every indication that the present program of the National Office of Vital

Statistics can eventually be expanded to provide comprehensive statistics on divorce for the entire country. Not only have an increasing number of states enacted legislation providing for central registration on the state level, but to some extent the data now available are more accurate than those formerly reported by the Bureau of the Census. For example, limited divorces are no longer reported in the figures on absolute divorce for a number of states.

However, a great deal of work over a period of years will be needed before the divorce statistics program can reach the stage of development already attained for mortality and natality statistics. There remains some confusion of terminology in the statistics reported by several states. For example, the terms "plaintiff" and "party to whom the decree is granted" are used

\*Paper read at the annual meeting of the American Sociological Society held in New York, December 28-30, 1949.

interchangeably. Also, there is variation in the specification of information available. The best example of this concerns children. Of the 23 states which collect this type of information, 8 ask for the number of minor children<sup>1</sup> affected by the decree, 5 for the number of children affected by the decree, and in the other 10 states the item relates to children or minors but is phrased somewhat differently.

There is also variation in what is reported by the different courts within a specific state. In addition to the children of the present marriage, the figures may or may not include adopted children and stepchildren. Some courts include all living minors, others limit the number to those residing at home. Some report unmarried children over 21 years of age who live with their parents, and others include "prenatal" children<sup>2</sup> covered by the decree.

As a whole, therefore, the data now reported on divorce certificates closely approximate, but undoubtedly understate, the number of children under 21 years of age in families dissolved by divorce. In consequence, the value and reliability of these statistics would be greatly increased by uniformity—preferably, if every state asked for the number of children under 18 years of age who are unmarried and living at home.

The absence of official, comprehensive data on divorce in the United States during World Wars I and II constitutes a serious deficiency. It seemed important, therefore, to construct the pattern of the recent war and postwar period, even if this had to be estimated by piecing together whatever data could be obtained from the various states and counties. As the first step, data were collected from almost 700 county and state offices, as well as from the National Office of Vital

Statistics. Then, the number of divorces and annulments granted in each state was estimated for the years from 1940 to 1948. This information was used in the first paper of this series.<sup>3</sup> The second paper dealt with the trend of marital dissolutions by death and divorce for the period from 1890 to 1948, and included preliminary estimates of the variations in dissolutions according to duration of marriage for the years through 1947.<sup>4</sup> The present paper contains provisional findings with regard to children for divorces and annulments granted in 1948, and extends the analysis of differentials in divorce to include size of family and duration of marriage.

In order to place the findings for 1948 in their proper perspective, it will be necessary to review briefly the highlights for the preceding years. The previously published papers contain greater detail, and reference thereto is especially desirable for information on the approximate nature of the findings, the sources of the basic statistics, their limitations and representativeness. It is important to note, however, that the detailed statistics for 1948 are much more extensive than for any other year since 1932, when the Bureau of the Census last compiled comprehensive data on divorce. Of the total divorces and annulments granted in the United States in 1948, information was obtained on 20 per cent by duration of marriage versus number of children affected, on an additional 3 per cent by duration of marriage only, and on 10 per cent by number of children only.<sup>5</sup>

<sup>1</sup> Paul H. Jacobson, "Marital Dissolutions in New York State in Relation to Their Trend in the United States," *Milbank Memorial Fund Quarterly*, 28 (January 1950), 25-42.

<sup>2</sup> Paul H. Jacobson, "Total Marital Dissolutions in the United States: Relative Importance of Mortality and Divorce," in *Studies in Population*, George F. Mair, editor, Princeton University Press, 1940, pp. 3-15.

<sup>3</sup> The data by duration of marriage versus children affected were obtained from 16 States (Florida, Iowa, Louisiana, Maryland, Michigan, Mississippi, Missouri, Montana, Nebraska, New Hampshire, Oregon, South Dakota, Tennessee, Vermont, Virginia, and Wisconsin) and 9 counties in 6 other States (Denver, Colorado; Winnebago, Illinois;

<sup>1</sup> The definition of minority itself is not uniform, since the age of majority for children affected by divorce is not 21 in all states; in Illinois, Montana, North Dakota, Oklahoma and South Dakota, for example, it is 18 years for girls and 21 years for boys.

<sup>2</sup> For example, in two of the 82 decrees granted in 1948 in Grand Forks County, North Dakota, the wife was pregnant at the time the divorce was granted.

Compared to the 23 per cent of the 1948 final decrees reported by duration of marriage, similar data are at hand for no more than 16 per cent of those granted in any year from 1933 to 1947.

#### TREND OF MARITAL DISSOLUTIONS

As is well known, the divorce rate has risen with few interruptions throughout our

to 5; and in 1948, it was close to 12.

Not as well known is the fact that, for the past 60 years at least, the upswing of the divorce rate has been more than offset by the steadily declining mortality rate. Thus, the annual frequency of marriage-dissolutions by the death of one of the partners has decreased from 30 per 1,000 couples in 1890 to about 19 in 1948. In consequence, the

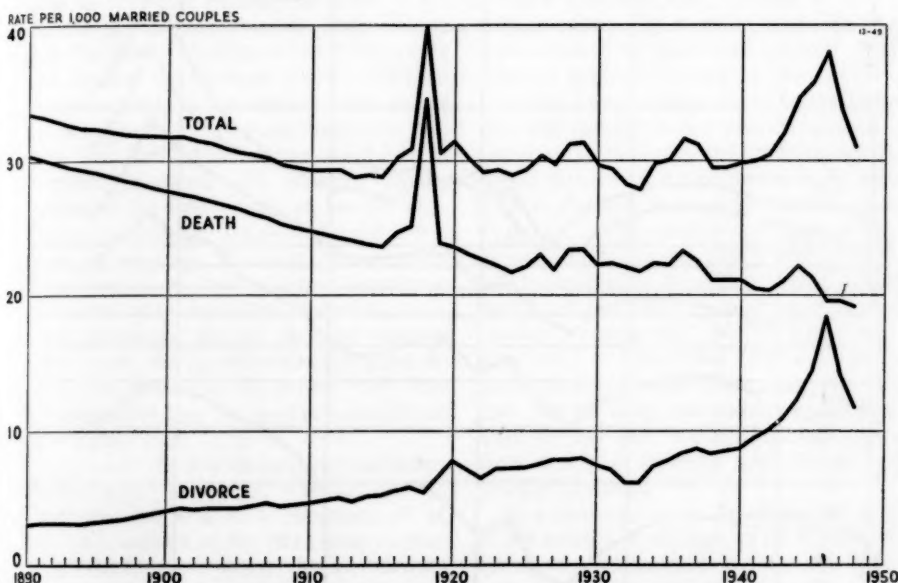


CHART I. Marital Dissolutions by Death and Divorce, United States, 1890 to 1948.

Note—The figures for divorce include annulments, and those for mortality include deaths overseas during World Wars I and II.

history. Shortly after the Civil War, the rate was less than 2 per 1,000 married couples; before the turn of the century, it was 3; by the outbreak of World War I, it was up

aggregate rate of marital dissolutions by death and divorce is somewhat lower now than it was before the turn of the century.<sup>6</sup>

The trend of marital dissolutions for the years 1890 to 1948 is shown in Chart 1. From 1890 to 1915, the total rate of marital

Hamilton and New York, New York; Grand Forks, North Dakota; Hamilton, Lorain and Vinton, Ohio; and Beaver, Oklahoma). In addition, Massachusetts and Rhode Island supplied data by duration only; Montgomery County, Ohio, Lincoln and Texas Counties, Oklahoma and Wyoming supplied data by duration and by children separately; and Los Angeles, California, Sedgwick County, Kansas, Summit County, Ohio and Lewis County, West Virginia furnished data as to children only.

<sup>6</sup> A similar trend is evident from 1880 forward for Amsterdam (Netherlands). See J. H. van Zanten and T. van den Brink, "Population Phenomena in Amsterdam," *Population, The Journal of the International Union for the Scientific Investigation of Population Problems*, August 1938, p. 10.

dissolutions decreased from 33 per 1,000 couples to 29. It is evident that this decline reflected the improvement in mortality conditions. In sharp contrast was the explosive rise in marriage-dissolutions in 1918, caused almost entirely by the influenza pandemic which struck in the autumn of that

the depression years 1932-1933 the rate dropped to the lowest point of the entire series—very likely the lowest in our history. Throughout World War II marital dissolutions rose rapidly as a result of the mounting divorce rate, and reached a high of 38 per 1,000 in 1946. With the readjustment to

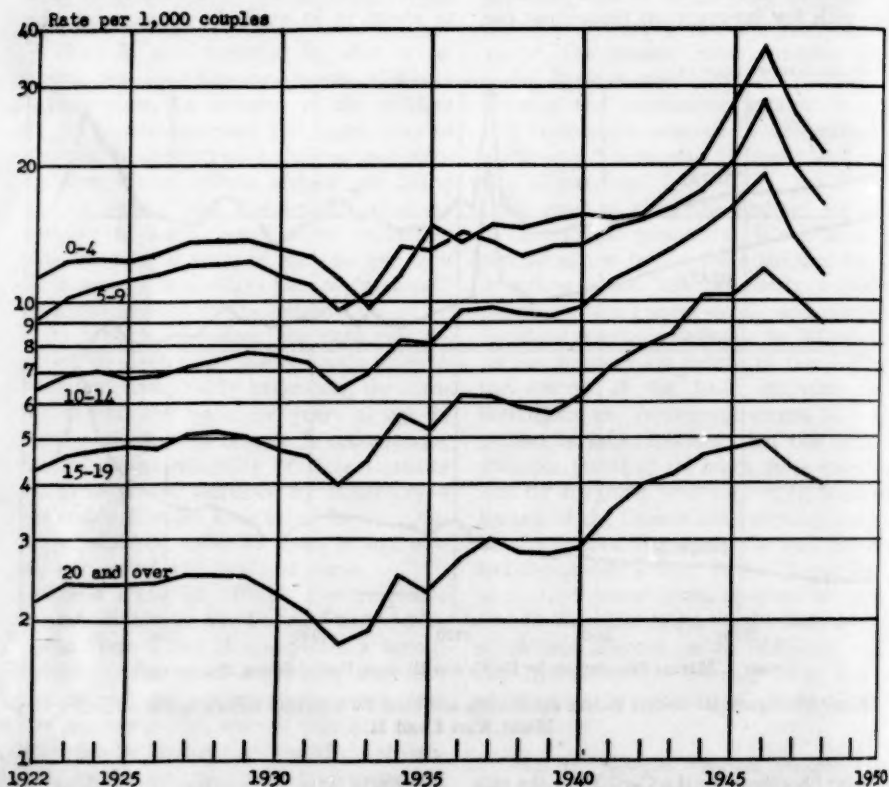


CHART 2. Divorce Rate by Duration of Marriage, United States, 1922 to 1948.

Note—Includes annulments. Rates for 1948 are provisional.

year. The rate of dissolutions in 1918 jumped to 40 per 1,000 couples—the highest point in the past 60 years.

From the end of World War I to the beginning of World War II, the rate of marital dissolutions fluctuated somewhat, but showed no definite upward or downward trend. It is noteworthy, however, that during

peacetime life, however, the divorce rate receded so sharply that in 1948 the total dissolution rate was almost back to the prewar level.

It is evident from the foregoing that mortality has been decreasing in importance in the disruption of conjugal ties, while divorce has been playing an increasingly im-

portant role. In 1890 divorce accounted for less than one-tenth of all marriage-dissolutions; in 1948, for almost four-tenths.

#### TREND OF DIVORCE BY DURATION OF MARRIAGE

In view of the sharp rise of divorce in recent years, it is of interest to examine the trend of the divorce rate at various periods of married life. Chart 2 shows these rates by five year marriage-duration groups for the period 1922 to 1948. It is evident that the recent upswing of the divorce rate was sharpest among those married less than five years—essentially those married during the war. From 1941 to 1946, the divorce rate more than doubled for couples married up to 5 years. Increases also occurred among couples at the later durations, but the relative rise was smaller for each successive five years of marriage. However, even among those married 20 years or longer, the rate in 1946 was fully two-fifths higher than in 1941. Although divorce declined sharply after 1946, the duration-specific rates in 1948 were still above the prewar level. This was especially true for couples married less than 5 and from 15 to 19 years.

In general, the divorce-frequency is highest in the early period of married life. In 1948, the rate was at a maximum of 26 per 1,000 couples in the third year of marriage (duration 2-3 years), dropped sharply through the 7th year, and thereafter declined less rapidly but almost steadily with each advance of matrimonial duration. By the 20th wedding anniversary, the rate was down to 8 per 1,000. Even after the golden wedding anniversary, some marital ties were dissolved by divorce.

#### CHILDREN IN DIVORCE

About 313,000 children under the age of 21 were involved in the 421,000 divorces and annulments granted in 1948, or roughly three children for every four marriages dissolved. However, close to three-fifths of the divorced couples had no children. This means that more than two-fifths had children, and among them there was an average of 1.78 children per couple.

The proportion of divorces involving children varies considerably with the duration of marriage. According to the experience in 1948, the proportion rises from as little as 10 per cent among the marriages ended before the first year, to a maximum of 65 per cent in the 18th year of marriage (Chart 3). Beyond that duration, however, the proportion drops almost without interruption, reflecting the fact that the children of these marriages have matured.

It is noteworthy that in 1948, children were involved in more than one-half of all divorces granted to couples married 7 to 23 years. The fact that a large proportion of the total decrees do not involve children is explained primarily by the heavy concentration of divorces and annulments in the early years of marriage. In 1948, for example, about 55 per cent of the total decrees were granted to couples married less than 7 years.

It is also evident from Chart 3 that, among families with children, the average number of children increases with the duration of marriage prior to dissolution.<sup>7</sup> The average per parent-couple climbs from somewhat less than 1.2 children for marriages dissolved after the first year to a maximum of 2.5 for those broken in the 19th through the 22nd years of marriage.

As a consequence of the above, the ratio of the number of children to the total number of divorces increases rapidly to a maximum of 1.6 in the 19th year of marriage, that is, at duration 18-19, and thereafter declines. The actual number of children involved, however, is at a maximum in a much earlier period of married life (see the curve in the lowest tier of Chart 3). In fact, the divorces at durations 5-9 years in 1948 accounted for close to 28 per cent of the total children.

The concentration of divorce-children in the early years of marriage helps to explain the relatively young age reported for these children. Marshall and May,<sup>8</sup> for example,

<sup>7</sup>The ratio of 1.3 children per family with children in the first year of marriage appears to indicate that the divorce rate was relatively high among the remarried with stepchildren. In this connection, see the lower curve in Chart 5.

<sup>8</sup>Leon C. Marshall and Geoffrey May, *The*

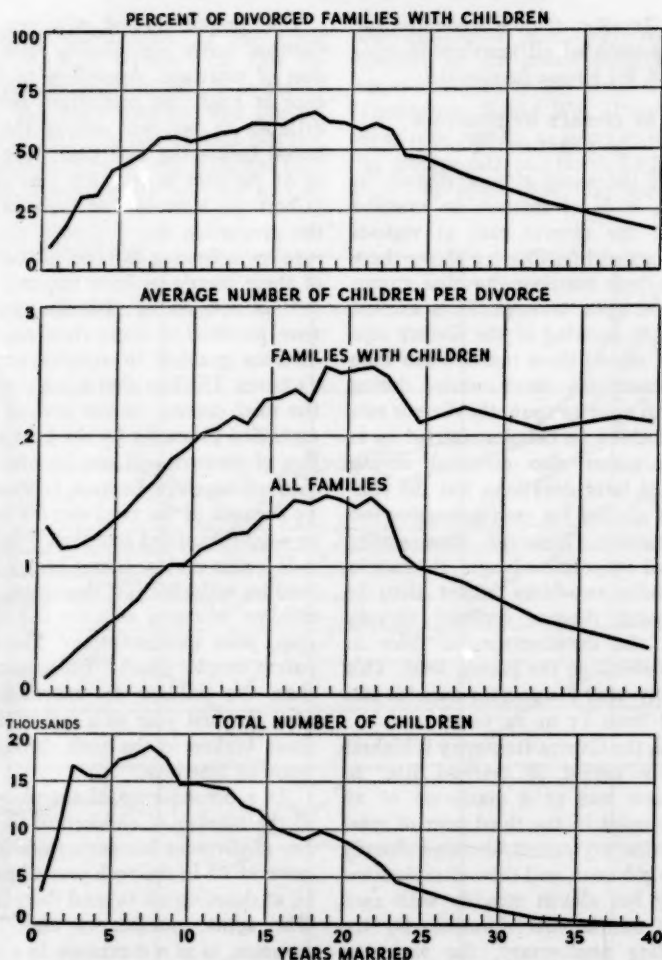


CHART 3. Children Under Age 21 in Families Dissolved by Divorce, United States, Decrees Granted in 1948.

Note—Includes annulments. Figures are provisional.

in their investigations in Maryland and Ohio for the period around 1930, found that 63 per cent of the children were under 10 years of age—a much higher proportion than prevailed among children in the families of the general population. More recent statistics for Multnomah County, Oregon<sup>9</sup> and Cook

*Divorce Court*; Vol. 1, *Maryland*, 1932, p. 83, and Vol. 2, *Ohio*, 1933, p. 115, Baltimore: The Johns Hopkins Press.

<sup>9</sup>Read Bain *et al.*, "Divorce and Children of

County, Illinois<sup>10</sup> indicate that the proportion at ages under 10 is currently somewhat larger—about 69 per cent. This increase in the proportion of younger children affected

Divorce," *Portland City Club Bulletin*, 30 (June 17, 1940), 350.

<sup>10</sup>Analysis by Judge Edwin A. Robson of 11,300 divorce cases heard by him in Superior Court from September 1945 to July 2, 1948; and cases filed in Superior and Circuit Courts from 1940 to 1946.

by divorce probably results from the relatively larger number of divorces now granted in the early years of marriage. In other words, it is likely that the age distribution of children involved in divorce at a specified duration of marriage has changed little if any in the past two decades.

#### TREND OF CHILDREN IN DIVORCE

When studying children affected by divorce in the United States, the first thing noted is that there are no data for earlier years strictly comparable to those for 1948. Prior to 1933, the Bureau of the Census reported on the number of minor children involved in divorce, but their statistics included separations and excluded annulments, and the data concerning children were not classified by duration of marriage. Nevertheless, the Bureau's data provide the best estimates available of the number of children under 21 years of age affected by divorce in former years. Moreover, the ratios of children per divorce, children per parent-couple, and proportion with children derived therefrom, are only slightly distorted if at all.

Apparently the average number of children per family reporting children has not changed. It was 1.8 in 1948 as well as during the period 1922 to 1932. However, the proportion with children rose from 38 per cent in the earlier years, to 42 per cent in 1948. As a result, the number of children per divorce increased from 0.68 to 0.74. Thus the total number of children affected has risen even more rapidly than the number of divorces.

It would be of special interest to review the period from 1933 through 1947, since it covers the depression of the 1930's and World War II. Although data on divorces and annulments by number of children have been collected for this period, they have not yet been analyzed. The findings will, therefore, be presented at a later date in a more extended treatment of this subject. It was evident, however, from only a cursory examination of the basic data that more children were involved in 1946 than in any other year of our history.

#### DIVORCE RATE BY SIZE OF FAMILY

It is widely believed that the presence of children in a family acts as a powerful deterrent to divorce. This view probably had its origin in the high proportion of divorces to couples without children, but it has also received undocumented support from our technical literature. For example, consider this statement in one of the college textbooks on the family:

"... where there are children the chances of divorce are much less than where there are no children; indeed, the chances in the first instance are only one nineteenth as great as in the second."<sup>11</sup>

For documentation, the reader is referred to a published dissertation from one of our leading universities. When we turn to that source,<sup>12</sup> we read that

"... 71 per cent of childless marriages in America end in divorce, while only 8 per cent of married couples with children eventually are divorced."

Clearly, if this is the basis for the first statement, then the likelihood of divorce is only nine times greater in childless marriages than in those with children.

But even this ratio of nine is so much greater than that reported for other countries, namely, 2.0 for Amsterdam in 1929-1932<sup>13</sup> and 2.2 for Sweden in 1933,<sup>14</sup> that it is desirable to review the statistical basis for the last quotation. This statement is based on the erroneous assumption that if 17 per cent of American married women never bear children, 17 per cent of the marriages existing in 1928 had no children. Obviously, if 17 per cent of married women reach the end of their reproductive life span without

<sup>11</sup> Meyer F. Nimkoff, *Marriage and The Family*, Boston: Houghton Mifflin Company, 1947, p. 631.

<sup>12</sup> Alfred Cahen, *Statistical Analysis of American Divorce*, New York: Columbia University Press, 1932, p. 113.

<sup>13</sup> J. H. van Zanten and T. van den Brink, "Population Phenomena in Amsterdam," *op. cit.*, p. 30.

<sup>14</sup> Carl-Erik Quensel, "Frequency of Divorce with Special Regard to the Number of Children," *Annex No. 6*, Statistical Institute in Lund, 1938, p. 202 (in Swedish).

ever having borne children, than the proportion in the early years of marriage who do not have children is much greater than 17 per cent. Moreover, not all children survive. Also, at the later years of marriage, an increasing proportion of the children reach adulthood, marry, or leave their families for other reasons. Therefore, the proportion of married couples without children was much greater than 17 per cent. Actually, the figure in 1928 was about twice as large, according

divorces, we find that the divorce rate in 1928 was approximately 15.0 per 1,000 for couples without children and about 4.4 for the parent-couples. In other words, the divorce rate was only 3.4 times greater for the couples without children—not 19 times or even 9 times greater.

At this point, it is appropriate to ascertain whether the data for 1948 can throw any additional light on this question. Surveys by the Bureau of the Census in 1948 provide

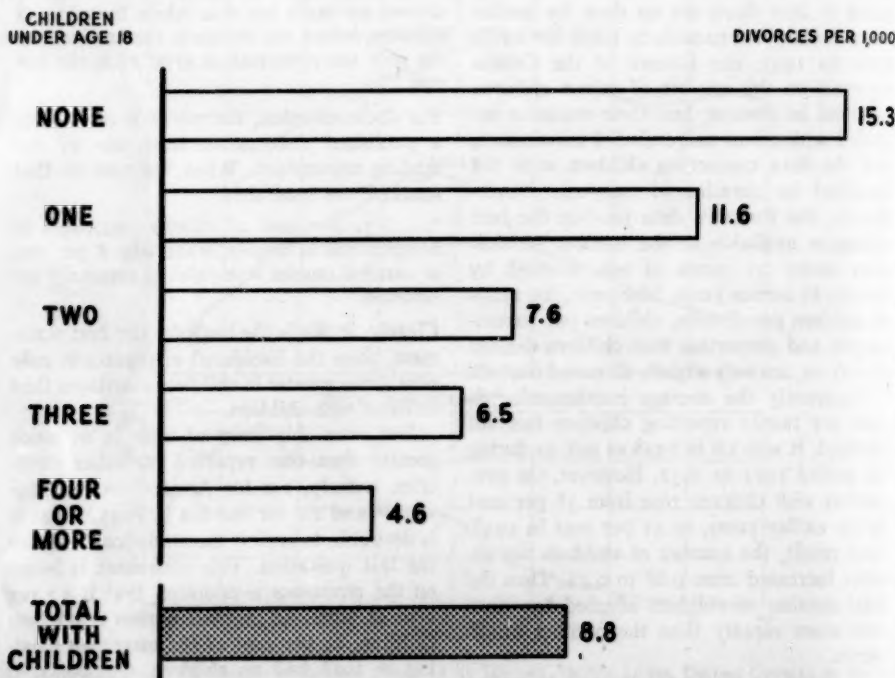


CHART 4. Divorces per 1,000 Married Couples According to Size of Family, United States, 1948.

Note—Includes annulments. Rates are provisional.

to estimates made by the author from 1930 Census data.<sup>15</sup> Using these population estimates, and including annulments with the

data from which it is possible to estimate the distribution of existing marriages according to number of children under 18 years of age.<sup>16</sup> The divorce data, however, are by number of children under 21 years of age. It is necessary, therefore, to translate the di-

<sup>15</sup> Bureau of the Census: *Types of Families in the United States, 1930*, released on August 5, 1935. The data for "husband-wife" and "wife, husband absent" families for the white and Negro population indicate that about 32 per cent had no children under 21 living at home.

<sup>16</sup> Bureau of the Census: *Current Population Reports, Series P-20, Numbers 21 and 23*, December 19, 1942 and March 4, 1949.

orce data into their distribution by number of children under 18 years of age. This was accomplished by means of the statistics by Marshall and May on the age distribution of children in divorce according to marital duration.<sup>17</sup> In making this adjustment, it was

couples according to number of children under age 18 are shown in Chart 4. It is evident that the relative frequency of divorce varies inversely with the number of children in the family. For couples without children, the divorce rate in 1948 was 15.3

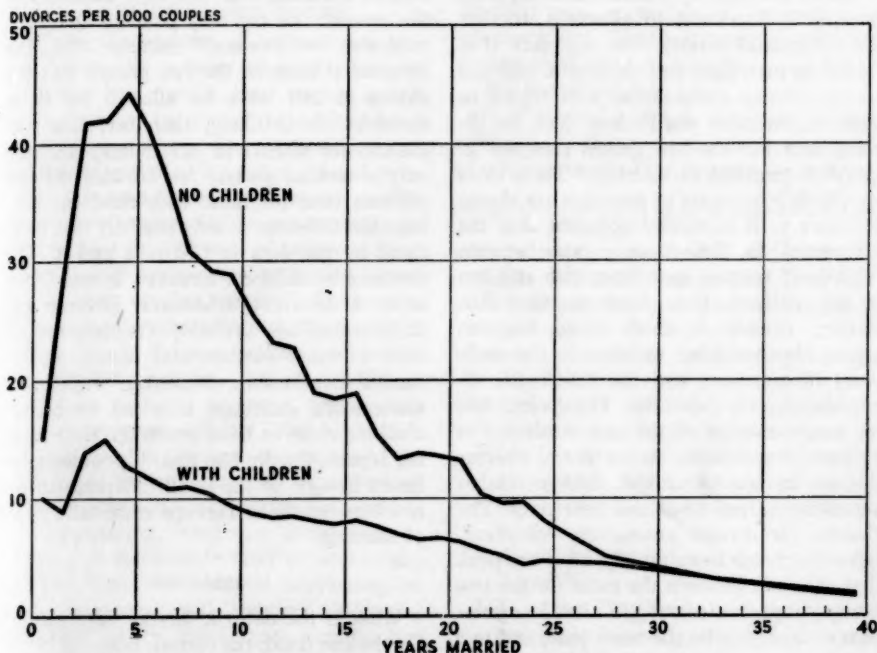


CHART 5. Divorce Rate for Married Couples With and Without Children Under Age 18, First 40 Years of Marriage, United States, 1948.

Note—Includes annulments. Rates are provisional.

assumed that the ratio of the children under 18 to those under 21 at any one specified duration of marriage was independent of the number of children in a family.<sup>18</sup>

The divorce rates per 1,000 married

per 1,000. Where one child was present, the estimated rate was 11.6 per 1,000. The figure thus continues to decrease, and in families with four or more children, it was 4.6. Al-

for those under 21 adjusted to ages under 18. Obviously, the statistics for children under 21 are less subject to error from this adjustment. However, it should be noted that the ratio of children under 18 to children under 21 does not deviate substantially from unity until about the 20th year of marriage, when the frequency of divorce and the number of children fall off rapidly. It is unlikely, therefore, that the rates in Chart 4, or those in Chart 5, especially for the first 20 years of marriage, could be materially affected by the adjustment.

<sup>17</sup> Leon C. Marshall and Geoffrey May, *The Divorce Court*, Vol. 1, p. 81 and Vol. 2, p. 115.

<sup>18</sup> Actually, 12 per cent of the divorces and annulments were reported in this survey by number of children under 18 years of age, and 88 per cent by children under 21. In the preceding sections of this paper, the statistics on children under 21 included the data for those under 18 adjusted to ages under 21; in the sections which follow, the statistics on children under 18 include the data

together, the rate for couples with children was 8.8 per 1,000. In other words, the rate for "childless" couples was almost double the rate for families with children, which is very much like the situation in the other countries previously noted.

Before drawing any conclusions from these rates, it is important to ascertain whether the differential results from the fact that "childless marriages and those with children are of different composition with regard to duration. In other words, how does the divorce rate for the two groups compare at specified durations of marriage? These rates for the first 40 years of marriage are shown in Chart 5. It is readily apparent that the differential in the divorce rate between "childless" couples and those with children is not uniform throughout married life. Rather, divorce is much more frequent among those without children in the early years of marriage, and the differential diminishes rapidly thereafter. The divorce rate for parent-couples climbs to a maximum of 15 per 1,000 at duration 3-4 years, whereas the rate for couples without children reaches a peak of 44 per 1,000 one year later. The chances for divorce among the "childless" fall off so much more rapidly after the peak that the ratio between the rates for the two groups drops from about  $3\frac{1}{2}$  after four years of marriage, to 3 by the tenth year, and to 2 by the twentieth year. Indeed, after the thirtieth wedding anniversary, the two rates are practically identical.

Thus, it is evident that refinement of the divorce rates according to duration of marriage does not eliminate the differential between "childless" and parent couples. Rather, the duration-specific rates indicate that the differential itself varies with the period of married life. What effect other uncontrolled variables have on the findings cannot be ascertained from the data now available. For example, the couples in the divorced group undoubtedly were separated for an average of about one year prior to divorce. Also, relatively fewer divorced couples are from rural areas where the fer-

tility rate is comparatively high. Would divorce rates corrected for the actual period of marriage prior to separation and for urban-rural residence eliminate part or all of the differential? It may be possible to answer this question after population data become available from the 1950 Census. For the present, one can only point to Quensel's estimates for Sweden,<sup>10</sup> namely, that the differential between the two groups was cut almost in half when he allowed for these variables. It is likely, therefore, that the chances for divorce in our country are also only somewhat greater for families without children than for those with children; perhaps the difference is only one-half that indicated by the data in Charts 4 and 5. The presence of children, however, is not necessarily a deterrent to divorce. Divorce and childlessness are probably concomitant results of more fundamental factors in the marital relationship. Moreover, while some unsuccessful marriages may not be broken until the children have grown up, their number is undoubtedly less than is popularly believed in view of the small difference in the rate between the two groups at the later years of marriage.

#### CONCLUSION

What is the outlook for the near future? On the one hand, the current boom in births may foretell a slowing down of the historic upswing of the divorce rate. At the same time, there are indications that divorce has increased more rapidly among families with children than among childless couples, so that there may be a sharper rise in the number of children affected by divorce than in the divorce rate itself. Should this materialize, it would add to the burden of our social agencies and make it more imperative than ever before that we evolve some satisfactory social mechanism for the rearing of these children.

<sup>10</sup> Carl-Erik Quensel, "Frequency of Divorce with Special Regard to the Number of Children," *op. cit.*, p. 206.

# THE INTERACTANCE HYPOTHESIS

## A Gravity Model Fitting Physical Masses and Human Groups

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### I. THE HYPOTHESIS STATED<sup>1</sup>

THE HYPOTHESIS of interactance predicts the number of interactions, of any one specific kind, among people when observed in groups, from their basic dimensions of time, space, population and per capita activity. This dimensional principle of human interacting can be roughly stated in folk terms (to be more exactly defined below) as: "Groups of people interact more as they become faster, nearer, larger, and leveled up in activity." Conversely, people will interact less in proportion as their groups (a) have fewer actions per period, (b) are further apart, (c) are smaller in population, and (d) are more unlike each other in average activity. The hypothesis thus states the factors determining the quantity of group interaction regardless of its quality or form, i.e., regardless of whether it is cooperating, competing, conflicting, or engaging in some other form of interaction. Whether these sub forms of interacting, or social processes, will require differential coefficients in the interactance formula, Eq. 1, is unknown as yet.

For testing, the hypothesis must be stated more formally in exact operational terms. Since the factors or dimensions of group interactance parallel the dimensions of physical gravity, the formal statement here will have the same form or formula for both, but with the factors expressed in appropriate physical or social units. Thus one factor in the formula will be in units of particles,

whether men or molecules, depending on whether it describes the interacting of human masses or of physical masses.

The formal statement is:

If, in a set of  $n$  groups, the index of interacting,  $I_o$ , is defined as the observed number of interacts of one kind between the members of the two groups in each of the  $\frac{n^2 - n}{2}$  pos-

sible pairs of groups; and

if the index of interactance,  $I_e$ , or expected interacting, is defined as the calculated  $\frac{n^2 - n}{2}$  products of seven previously

observed factors, namely:

$T$  = the total time of interacting,

$L^{-1}$  = the inverse of the distance between two groups, where the exponent, 1 (the small letter L), in amount, weights its base factor),

$P_A, P_B$  = the population of any two groups, A and B,

$I_A, I_B$  = the "specific indices of level," or per capita activity, whether constants characterizing each group or subset of groups in a unit period,

$k$  = a constant for each type of interacting (in a given culture and period),

$I_e = \frac{k I_A P_A I_B P_B T}{L^1} =$  the interactance

defined Eq. 1A

then: the predictance, or correlation index, between the observed (o) interacting and the expected (e) interactance will approach unity, within limits of sampling error, increasingly as the factors are well delimited, well measured, and well combined. The correlation's approach to unity may be statistically tested by its being significantly in excess, at the one percent level of confidence, of some arbitrary high  $r$ , such as .9.

$r_{eo} ? > .9 \pm \sigma$  the interactance hypothesis, Eq. 1

<sup>1</sup> Prior statements of this interactance hypothesis may be found in the publications of J. Q. Stewart, G. K. Zipf, S. C. Dodd and others as noted in footnotes hereafter. Previous statements have either been more limited to a part of the full formula (the PP/D part), or have not fully and explicitly developed the implications of the time factor,  $T$ , the group constants,  $I$ , or the activity-type constant,  $k$ , as this paper aims to do.

where the questioned inequality denotes an hypothesis.

This predictance,  $r_{eo}$ , means "the inter-actance should predict the interacting," or "theory should correlate highly with observation." The size of the observed predictance correlation is the crucial test of the inter-actance hypothesis<sup>2</sup>). A low predictance (such as  $r < .5$ ) means either that the principle does not hold in that situation or that it is obscured by irrelevant overlaying factors including errors; a high predictance (e.g.,  $r > .9$ ) means that the principle holds with little obscuring.

This hypothesis includes the "PP/L" hypothesis (i.e., population product over distance) and the population potential ("P/L") hypothesis as special cases. They are the cases where the remaining factors are unities in effect by being controlled or neglected or irrelevant. Thus if the total population is homogeneous in having a common level of activity, then the I factors are unity and hence need not be considered in the formula. If all the observing is in one period, then  $T = 1$ , and time is constant in that situation. If the interaction of only one plurel with all others is observed, then that  $P_A$  becomes a constant and "PP/L" becomes "P/L".

## II. DEFINITIONS

*A. The time dimension, T.* The duration of the period in which the number of interacts has been observed is the time factor, T. If Eq. 1 is divided through by this time period, it then defines the time rate of interacting i.e., the speed of the social process expressed as acts per period,  $I/T$ . Thus if telephoning among American cities is the interacting, then the number of phone calls between any two cities will obviously tend to vary with the length of the period observed. For a given time period, more acts of a group mean greater speed of interacting, or a "faster" group in the colloquial version of the hypothesis above. The

time units need not always be constant sidereal units of hours, days, years, etc., but may be periods of activity of variable sidereal durations, such as "in 100 games played. . .," "during the lifetime of these 1000 persons they did . . .," or "for two cigarette smokes," etc. But as the number of such subperiods becomes very great in any overall period studied, the subperiods will tend to become interchangeable with their average, thus approximating a constant sidereal period more closely as the time sampling gets larger.

*B. The space dimension, L.* The inverse of the distance intervening between the two groups in each pair is the space factor,  $I/L$ , expressed as 'nearness.' The distance is measured in physical units of miles, kilometers, etc., though higher predictance may result from using units of route distance or of travel time, or travel cost, wherever these measure the resistance to interhuman activity better than straight line distances. A related index is Stouffer's "Intervening Opportunities" which can be geometrically proven to be equivalent to distance in so far as these opportunities are of uniform density throughout the area studied. The first power of the distance is indicated in the findings of studies to date, but other exponents or functions of the distance may fit the data better if the density of events on a surface is not uniform.

*C. The population dimension, P.* The two populations,  $P_A$  and  $P_B$ , in each pair of groups may each be expressed in units of persons. A group is a number, P, of persons who are interacting whether actively or latently<sup>3</sup> (as in a meeting or between meetings when scattered). The groups thus far studied in testing the interactance hypothesis have been mostly cities or states in the U.S.A. and other geographic groups, since data have been most available for them. They may, however, be any specifiable groups provided they are located so that their intervening distance is either computable (or of no arithmetic effect) and pro-

<sup>2</sup>A secondary test is the sampling reliability of the observed  $r$  which may be measured in probability terms by the usual  $z$  transformation for a high  $r$ .

<sup>3</sup>"Active" and "latent" human interaction may parallel "kinetic" and "potential" energy in physics.

vided they are large enough for the probability pre-condition described below to work out smoothly. In any population or universe studied, the persons must be divided up among  $n$  groups. Then there will be

$\frac{n^2 - n}{2}$  possible pairs of groups for observing

the pair interactions of groups which are built up out of the  $\frac{P^2 - P}{2}$  possible pairs of persons.

*D. The "specific levels" dimensions,  $I_A, I_B$ .* The two indices of specific level,  $I_A, I_B$ , are weighting factors introduced to equate the heterogeneity of the groups. They are constants specific to each group (or subset of groups within the total set). They correspond in the human mass to the specific weights of molecules in the physical mass.

The levels may be exactly measured as the net effect of any and all their determining subfactors by using as the index of level for each group its average acting of the given kind in a unit period. Thus let the average or per capita number of phone calls of every type handled by a city's exchanges represent that city's telephonic level in a period. This average level is  $I_A (= (\Sigma I)_A / P)$  in Eq. 1A. When multiplied by the population,  $P$ , it becomes again the total number of acts in a period  $(\Sigma I)_A$ . Let this total be called the "activity" of group  $A = (\Sigma I)_A = I_A P_A$  for unit period. The interactance of two groups in a unit period and a unit distance apart (so that  $T = 1, L = 1$ ) would then (in accordance with the law of joint probability discussed below) be in proportion to the simple product of their activities.

$I_e = k I_A P_A I_B P_B = k (\Sigma I)_A \cdot (\Sigma I)_B$   
Eq. 2A, the interactance as product of two activities.

All this means that the specific index,  $I$ , of level of activity is a constant for each group (for a given kind of interacting in a given total population and period), which is found as the per capita activity of that group. The  $I$ 's are thus "group constants" whereas the  $k$  is an "interaction type" constant.

If for a given kind of acting the largest amount or highest level in any group is

taken as the unit and the amount in each other group is expressed as a proportion of unity, then this weighting ( $I$ ) disappears as the groups become homogeneous. As they "level up," their specific indices become unity and do not effect Eq. 1.<sup>4</sup>

The subfactors determining an index of specific level of activity are a rich field to explore. These subfactors of any specific index may be such common influences as differential sex, age, income, education, occupation, marital status, political, religious and other affiliations, etc. Sometimes these subfactors are more observable than the total number of acts so that the latter can be solved for as an unknown (within limits of the regression equations involved).

For an example of the specific index of level, consider telephonic interactance among Mexican and U. S. Cities. This may require multiplying each Mexican city population ( $P_A$ ) by a specific index of perhaps .5 ( $= I_A$ ) if that should prove to be the relative level of per capita telephoning throughout Mexico (see Eq. 1). Or, again, if difference of language reduces telephoning to 36%, then each city-population ( $P$ ) in any international pair of cities ( $P_A P_B$ ) should be multiplied by .6 (since  $.6 \times .6 = .36$ ) as its specific index. The specific indices thus adjust for differences between subsets of the set of the groups studied, either as a property of each subset or as a relation (which is a property of a pair of subsets). Any specific index, furthermore, may be a product of several factors ( $I_A = I_{A1} \cdot I_{A2} \cdot \dots \cdot I_{An}$ ) as when a Mexican city, if taken in a pair with a U. S. city, may have a specific index of .3 ( $= .5 \times .6$ ), thus compounding its low use of telephones with the language barrier. For an actual sample, Stewart finds the Western, Southern and residual States have specific indices in the ratios of 2, .8 and 1, respectively, in several studies.

<sup>4</sup>If, for stability, the average is preferred to the maximum amount of interacting this  $I$  weight will still tend to disappear in effect as the groups equalize their activity. Equalizing group activity around the average instead of the maximum will require rephrasing the colloquial form of the interactance hypothesis above.

The two specific indices,  $I_A$  and  $I_B$ , in Eq. 1, need further exploring by research. Research must determine their subfactors and amounts for specific populations for each type of interaction, just as physical research has identified the specific molecular weights of thousands of homogeneous substances. At present they mean whatever differential characteristics of the group will increase the predictance correlation,  $r_{eo}$ , Eq. 1. Thus, if multiplying each group by its mean age results in a higher predictance, then age is a specific condition needing to be taken in account in the situation studied. Similarly, sex, income, education, language difference, etc., may be specific indices, or subfactors in a specific index, in observed data. In short, these specific indices leave the door open for further variables, undetermined at present, to come in and make the calculated interactance,  $I_e$ , predict the directly observed interacting,  $I_o$ , better. The operational test of whether an index should be classed as an index of "specific level" is whether its inclusion in Eq. 1 raises the predictance correlation,  $r_{eo}$ . If including or increasing the candidate specific index or candidate subfactor in the specific index,  $I$ , raises the predictance,  $r_{eo}$ , then to that extent the candidate is accepted as a factor in the interactance,  $I_e$ .

*E. The interactance constant,  $k$ .* Since the unit acts in the activity are the same kind of unit acts in the interacting, the constant,  $k$ , can be shown to be the reciprocal of the total number of acts ( $\Sigma I$ ) by all persons in the  $n$  groups, i.e.,

$$k = \frac{np}{\Sigma \Sigma I} = \frac{1}{\Sigma I}$$

Eq. 2B, the interactance constant for one kind of interacting as the reciprocal of the total number of acts.

This is derivable from the law of joint probability, discussed below, by writing the activities of every group as a proportion of the total ( $\Sigma I$ ) for all groups:

$$\frac{I_e}{\Sigma I} = \frac{(\Sigma I)_A}{\Sigma I} \frac{(\Sigma I)_B}{\Sigma I} \quad \text{Eq. 2C, the probability of interaction of any two independent groups, A and B.}$$

Multiplying Eq. 2C by  $\Sigma I$  and dividing it into Eq. 1A gives Eq. 2B (when  $T = L = 1$ , and  $(\Sigma I) = IP$ ).

In practice,  $k$  may not be exactly as in Eq. 2B since it may have two further factors in it, namely: a factor to adjust for the units of distance, whether miles, kilometers, feet, etc., and a "residual" factor which is a best fitted average summarizing everything else in whatever discrepancy there is between observed data and the expected interactance. This residual factor within  $k$  will occur whenever the total number of acts is unknown so that  $k$  has to be calculated by best fit technics, and is not estimatable from Eq. 2B directly.

Further properties of this constant  $k$  will emerge from its dimensional analysis described below.

*F. The interactance,  $I_e$ .* The amount of interacting expected by the hypothesis is defined by Eq. 1 and called the "interactance,  $I_e$ ." It is just a name for that product of the six dimensions and  $k$ . Its utility is that its factors are observable in advance so it can predict the amount of interacting expected between groups.

*G. The interacting,  $I_o$ .* The amount of observed interacting, counted as the number of interacts, is here called the "interacting,  $I_o$ ." Any kind of stimulating and responding between persons, when clustered into groups for observing, may be studied. To date, some of the types of human interacting studied (with varying degrees of precision) or available for study are:

#### TESTED:

Migrating between communities  
Telephoning between communities  
RR expressing between communities  
Traveling by bus, train, plane between communities or states  
Attending colleges from other states  
Choosing friends between dormitories  
Marrying between towns

#### TESTABLE:

Mail between towns, states or nations  
Bank checks between districts  
Charge accounts by zones around a store  
Purchasing by zones around a store  
Association memberships  
Communiting between center and suburbs  
Corresponding between communities, nations, etc.

TESTED	TESTABLE
Rumor retelling by concentric zones	Visiting between communities, states, etc.
Noticing deaths in newspapers of other towns	Clientele of a store, bank, church, school, community center, doctor, hospital, library, theater, hotel, park, etc., by concentric zones
Injuring by car in distances from home	Attending meetings by concentric zones
Auto traffic between states	Subscribing by communities
Money orders between communities	Etc., etc.
Van shipments between communities	
Reputations of corporations in one community	

### III. THE PRE-CONDITIONS—INCLUDING A PARTIAL EXPLANATION

Since every scientific law is a statement of uniform behavior of phenomena under specified conditions, the conditions prerequisite for the interactance hypothesis, Eq. 2, to hold need to be found and stated. What are the pre-conditions for maximizing the predictance  $r_{eo}$ ?

These pre-conditions are not clearly known as yet, or at least not published<sup>a</sup>). The author believes they will turn out to be probability conditions, i.e., conditions where the laws of probability can work out most smoothly. This means observing interacts of one kind *in large numbers* or with proper random sampling technics. In studies reported to date the predictances seem to be higher in the largest populations, though not enough studies exist to test this statement statistically.

The product of the two groups' sizes,  $P_A P_B$ , is a simple case of the law of joint probability. This law expects the probability

<sup>a</sup> The further pre-conditions of good methodology are assumed. The variables must be accurately and reliably measured in samples of data which are adequate in size and representative in composition. These are the semantic and pragmatic technics for assuring high correspondence between the symbols in Eq. 1 and 2 and the phenomena symbolized. These methodological conditions are in addition to the substantive conditions among the phenomena.

of a joint occurrence of two independent events whose separate probabilities are  $p_1$  and  $p_2$  to be their product,  $p_1 p_2$ . Applied to U.S. cities, for example, let Seattle's population be  $P_A$  and New York's be  $P_B$ , and  $P$  be the total population of all U. S. cities. The probability of drawing a Seattleite (or his actions) is  $P_A/P$ ; the probability of drawing a New Yorker (or his actions) is  $P_B/P$ ; the probability of drawing them jointly as in some interact between them is their product,  $P_A P_B / P^2$ . As  $P^2$  is constant for all pairs of U. S. cities, the most probable number of interacts in every pair of cities is proportional to the numerators, or population product,  $P_A P_B$ , as asserted in Eq. 1. The "most probable" nature of the numerator in the formula for the time rate of interactance is most simply revealed by Eq. 2A. The interactance there is just the product of the two groups' activities. This is the law of joint probability where an act is the unit element instead of a person. In any homogeneous population our interactance in a period becomes identical with its subcase of the "PP/D" formula, since here the indices of level are both unities (by definition of homogeneity).

Similarly, in physics the force of gravity between two masses of one kind of molecule is proportional to the product of the number of molecules in mass A and the number of molecules in mass B. This is true for homogeneous masses. In non-homogeneous masses, the number of molecules (or persons, in sociology) must be multiplied by their specific weights (or specific levels, in sociology). Thus both physical and social gravity exemplify the mathematical law of joint probability in this part of their formulas.

Next consider the probable interacting as conditioned by distances apart. Simplify the formula, Eq. 1, to the "ripple" case, where one person ( $P_A = 1$ ) in one spot interacts with people all around him who are divided into groups by zones fixed by equal increments of the radius. (This case<sup>a</sup> was studied

<sup>a</sup> A mimeographed report entitled "A Measured Wave of Interracial Tension" is available from the Washington Public Opinion Laboratory (University

by us where the interacting was a retelling of a rumor about an interracial rape, and where we found it tended to fade as the first power of the distance it had traveled from the rape site as center.) The areas of the concentric zones or rings increase as the odd numbered units of radius (1, 3, 5, 7, etc.), i.e., the zone areas are proportional to their distance from the center.<sup>7</sup> If the population is of even density throughout all zones, then the number of possible interacters from each zone varies with the zone's distance from the first interacter at the center. If we assume a constant amount of interacting from zone to zone, the per capita share in each zone will then decrease inversely as the population of successive zones increases and so it will decrease as the zone's distance from the center. This is  $1/L$  in Eq. 1. This assumption of constant interacting or constant social energy seems more plausible than its alternative (neglecting loss by "friction" or social resistance). While this argument may have weaknesses and not be generalizable from the special "ripple" case here, nevertheless it suggests that a condition for the interactance hypothesis to hold is that of uniform density or an even distribution of the population over the area studied. This uniform density may hold even though the population may be clustered among human groups, such as cities of varying size, as long as all the groups of any one size tend to be evenly dispersed in the area studied. If the density is not uniform, then some function of the distance other than its first power may give a better fit between the model and the data.

of Washington, Seattle) and is written up as an experiment accompanying the present paper on theory.

<sup>7</sup> This statement is shown by series of zones below:

Zone's radius, R	Area of outer circle	Area of inner circle	Difference, or area of zone, A	Area of zone in $\pi R^2$ units	Area + 1 divided by 2 = radius
1	$\pi 1^2$	0	$1\pi$	1	1
2	$\pi 2^2$	$\pi 1^2$	$3\pi$	3	2
3	$\pi 3^2$	$\pi 2^2$	$5\pi$	5	3
4	$\pi 4^2$	$\pi 3^2$	$7\pi$	7	4
etc.					

Note that the zone areas (A) in the fourth column and the radii (R) in the first column are perfectly correlated, i.e.,  $r_{AR} = 1.0$  or  $A + 1 = 2R$ .

Finally, consider the interacting as conditioned by time. Here again we suggest for the simplest case that the interacters are evenly distributed among the time periods studied. The more the interacters deviate from equally frequent occurrences in every sub-period, whether due to some cycle or to some trend, the less accurately will Eq. 1 predict beyond the total period studied.

A trend may be in the form of a new kind of interaction needing time to mature in a given culture. When observed, it may be incompletely, and so unevenly, diffused through the population and the area. Cavanaugh's studies in our Laboratory suggest this when he finds a high predictance correlation ( $r = .9$ ) for postal money orders (which are mature and fully diffused interactings) and a lower predictance correlation ( $r = .58$ ) for air travel (a less matured type of interacting).

In summary, we hypothesize that the preconditions<sup>8</sup> for the interactance hypothesis, Eq. 1, in its simplest form, are probability conditions including:

- observing a large number of interacters (in the I dimension)—at least large enough to yield stable means,
- which tend to be evenly distributed among the population (in the P dimension),

<sup>8</sup> It may be noted that the first condition is highly fulfilled in physical gravity where the molar masses studied involve billions of billions of molecules. In human masses, usually observed as of the order of thousands of persons, much less close correlation of theory and fact is to be expected. Note further that variable density of molecules in space is measured as "state" (solid, liquid, gaseous) and as pressure in gases for instance, and variable rates of interacting of molecules in time is measured as temperature.

- (c) which tend to be evenly distributed throughout the area (in the  $L$  dimension), (a controversial assumption, often unfulfilled in astronomy),
- (d) which tend to be evenly distributed in time (in the  $T$  dimension), (an irrelevant assumption in physics).

In addition to these rectangular distributions, other forms of distribution, such as the normal probability distribution of interactions among people, may also conceivably result in Eq. 1, though this has not yet been explored. These preconditions need much further research. Deviation from these conditions is both possible and to be expected. Such deviation means either that a more complicated formula is a better model or that the data will fit the model less closely.

#### IV. TECHNIQUES FOR TESTING

The interactance hypothesis is testable by any graduate student. He can study the tested or testable interactions listed above, especially in the clients in concentric zones around some store, church, library, doctor or other center for interaction of people. With the interacting and factors of interactance decided on, the design of the inquiry turns on calculating the predictance correlation,  $r$ , between the observed interacting and the dimensions of interactance, singly and in combination. This tests "closeness of fit" of theory and fact. "Goodness of fit" must also be tested as in a chi square test that the observed statistic in the sample comes from a specified universe within certain probability limits.  $r$  and  $X^2$  together verify the interactance hypothesis, measuring respectively the degree of agreement and the probability of it. Alternatively, a correlation above a pre-assigned amount within pre-assigned confidence limits verifies the hypothesis.

Designs to isolate the factors may use experimental manipulation or statistical selection. A few suggestions may stimulate research here.

To isolate the distance factor,  $L$ , as the variable for studying its relation to the interacting, keep time constant by studying one unit period, keep levels constant by

studying a homogeneous population, keep one group,  $P_A$ , constant by studying it as a center, and let the concentric zones around it define in turn the other group,  $P_B$ . Then the per capita interactance ( $I_c/P_B$  in each zone, times the distance from the center is a constant ( $I_c/P_B)L = k$  and is the simple harmonic curve where one variable is the reciprocal of the other variable. Taking logs, the observed interacting should then conform to the straight line that graphically represents the expected interactance.

If distance is to be kept constant in order to isolate the varying of another factor, then study interactions in one zone or in one class interval of distances apart. Thus local telephone calls having a flat rate abolish distance in effect permitting isolating (for any one period) the  $P_A$  and  $P_B$  factors as the number of telephone calls in each pair of exchanges in turn within that locality.

Time is constant if all observing is for one unit period, as in clocking the cars from all States entering a city during one week. Time is easily varied while keeping other factors constant by observing successive periods, or subdividing an overall period into representative subperiods.

One population factor,  $P_A$ , is easily kept constant by taking one group in one location and studying its interactions with the successive concentric zones. The other population factor,  $P_B$ , is then controlled by dividing Eq. 1 through by it, getting interacts per capita, varying inversely as the distance,  $I_c/P_B = L^{-1}$ .

Another simple technic for controlling one population factor is to make it constant by observing a entire public by a census or a representative poll. Thus in studying the reputations of corporations, the sample of the public polled can be  $P_A$ , and  $P_B$  can be each corporation's employee population in turn. The employee population is one index of expected interacting with the whole community and is called "par for size" in one study\* of public relations where the inter-

\* G. Walter Barlow and L. Stanley Payne, "A Tool for Evaluating Company Community Relations," *Public Opinion Quarterly*, Fall, 1949.

actance hypothesis, simplified to isolate this one population factor (so that  $I_a = P_b$ ), tended to hold on various kinds of opinion interacting (i.e., opinions of A about B).

The levels are controlled by choosing homogeneous populations in which such usual indices of level as age, sex, income, education, marital status, etc., either do not correlate with the interactance nor with the distance, or else are constant at one value (i.e., one age, one sex, one income class, etc.)

On the other hand, the index of level, or a candidate factor ( $I_{A1}$ ) in the index of level (as in  $I_A = I_{A1} \cdot I_{A2} \cdot I_{A3} \dots I_{An}$ ), may be varied in isolation to observe its correlation with the interacting ( $r_{I_{A1}}$ ).

To vary the level alone, select interacts of one kind in one period at one class interval of effective distance between one group, ( $P_A$ ), and the general public, ( $P_B$ ). Thus orders received by a national mail order firm, or letters received by a federal agency in Washington, D.C., in a period, might be cases in point. Since letters have uniform postage regardless of distance within the country, distance is not an effective variable, provided all geographic parts of the country tend to interact per capita somewhat equally with the central group. Then if the number of interacts tends to increase with the increase of any characteristic, X, of the sampled public, then to the extent of their correlation the characteristic X is a factor in the index of specific level in that situation. Including such an X in the interactance formula, Eq. 1, as a substitute for  $I_b$  (or as a factor in  $I_b$ ) will make the (expected) interactance predict the (observed) interacting better. This carries the principle of group gravity to a finer approximation or writes the candidate social law more exactly in the situation studied.

Many experimental designs can test implications in the hypothesis. Thus when the two groups are one group taken twice, do intra-group interacts vary as the square of that group's population? Or is there a "cohesion effect" exceeding this? Will such a cohesion effect, if found, require a different function of distance? Do outgoing

interacts equal incoming interacts on the average (as telegrams of all kinds from cities seem to do)? Does doubling the time double the interacting, while doubling the distance halves it? Are chain interactions deducible and predictable from Eq. 1? Are the amount, levels, diffusing, or speed of interaction predictable by suitable amplifying of Eq. 1 for the interaction of group with group clustered in sets of groups (instead of person with person clustered in one set of groups)? To test this statement, leagues of teams or of nations, cartels of corporations, denominations of church congregations, families in clans or communities, etc., might yield testable situations.

With any one factor isolated, its correlation scattergram against the interacting should be studied. Cases deviating most widely from the diagonal line give valuable hints from their characteristics as to possible disturbing or overlaying variables needing to be controlled to raise the predictance. Then various types of curves should be fitted. Is the harmonic curve implying multiplying as the operation combining the factors the best fit? The six-variable harmonic curve that is Eq. 1 is only one type—although a parsimonious type and the simplest curve (except for additive factors). When the best fitting curve has been found, its parameters or constants must be solved for. Is the simple six-fold harmonic best, or should the factors have exponents other than unity as in the generalized harmonic? (i.e.,

$$I = \frac{k \cdot I_A^p \cdot P_A^q \cdot I_B^r \cdot P_B^s \cdot T^t}{L^1}$$

Taking logs on both sides of this generalized harmonic equation reduces it to a sum of weighted addends in which the weights are the exponents to be solved for as multiple regression coefficients.

Finding the closeness and goodness of fit of the curve to the data then completes the testing of the hypothesis.

Another convergent technic for testing the interactance hypothesis is simply to calculate the coefficient of contingency, C, in the

matrix of intergroup actions. This becomes equivalent to the correlation coefficient as the number of groups and the number of interactions in each pair of groups gets large. This contingency is zero if chance factors (modified by the intervening distance) alone operate as expected by the interactance, Eq. 1A.

As the contingency exceeds zero significantly it measures further correlating factors. The largest cell discrepancies in the contingency table identify the pairs of groups in which these further factors occur. This may neatly isolate for study any special causes of interaction over and above the basic dimensions of Eq. 1A. Thus in the study of corporation reputations above, Eq. 1A (simplified) was given as "par for size" and deviations from it measured the superiority or inferiority of each corporation's public relations. Still another use of abnormal cell deviations is to detect errors in the data. Thus Zipf suspected one extreme cell entry and the corporation reporting the data checked back in its statistics and found and acknowledged a large clerical error there.

#### V. THE EVIDENCE TO DATE

The purpose of this paper is not to review the history of social gravitation theorizing, but to state it for sociologists in operational and verifiable terms as a product of seven measurable factors with their dimensional implications. The reader should be warned, however, that this interactance hypothesis is not new. Only its exact operational definition in observable indices with computable constants and exact quantitative testing by closeness and goodness of fit indices are recent developments. A century ago, Carey<sup>10</sup>) described it roughly. Others have discussed it in a loose way without rigorous statistical checking. Recently, G. K. Zipf<sup>11</sup>) has studied it quantitatively in scattergrams

of interacting vs interactance (without clinching them by calculating the closeness and goodness of fits,  $r$ ,  $X^2$ ). J. Q. Stewart<sup>12</sup>) has explored it further and has studied the population potential factor,  $P/L$ , with rigor. A dozen further types of interacting have been studied by J. Cavanaugh in the Laboratory at the University of Washington for a PhD. thesis in progress. Other studies have contributed data, even though sometimes the author was unaware of it. Some of the evidence to date can be followed up in the references cited.<sup>13</sup>)

The closeness of fits from visual inspection of scattergrams looks very high on many of these sets of data. The  $r$ , in the few cases where it has been reported, ranges from .55 to .95. It is highest where the sample of interacts is large (over a million), or is maturely diffused (in the lifetime of the current generation and all over the country) or is "granular" and not "bouldery" in type. "Granular" interacts are simple, frequent acts of persons like telephoning, stating an opinion about people, letter writing, buying from, selling to, etc.; while "bouldery" ones are infrequent and collective acts like declaring war.

The evidence supporting Eq. 1 seems sufficient to rank it as a most promising hypothesis, but not yet as a verified law of group gravity.

#### VI. THE DIMENSIONAL ANALYSIS OF HUMAN INTERACTING

Deeper understanding and consequent ability to predict intergroup activity can be derived from a dimensional analysis to isolate the properties of the interactance constant,  $k$ . The physical constant of gravity will turn out to be a special case of this class of constants for interacting aggregates of molecules, or men, or animals, or dice, or of any entities which fulfill the pre-conditions. To see this, the four basic classes of

<sup>10</sup> Henri Carey, *Principles of Social Science*, Philadelphia: Lippincott, 1888.

<sup>11</sup> George Kingsley Zipf, "The Hypothesis of the 'Minimum Equation' as a Unifying Social Principle: With Attempted Synthesis," *American Sociological Review*, 12 (December, 1947), and *Human Behavior and the Principle of Least Effort*, Cambridge, Massachusetts, Addison-Wesley Press, Inc., 1949.

<sup>12</sup> John Q. Stewart, "Demographic Gravitation: Evidence and Applications," *Sociometry*, Vol. XI, (February-May, 1948).

<sup>13</sup> See also Stuart C. Dodd, *Systematic Social Science* (Esp. Chap. 10), Seattle: University Bookstore, 1947.

dimensions must be compounded and then compared as in the following paragraphs.

The elementary dimensions of time, space, population and residual characteristics which are the factors of interacting and of all human behavior can be combined into many compound concepts. For the unity of science, we use the same names for these compounds in physics and in sociology wherever their formulas are the same. The same form or procedures for combining the factors means they have the same operational definition. But first the primitive terms of physics (mass,  $M$ ; time,  $T$ ; and distance,  $L$ ) must be expanded to be the primitive terms, or dimensional factors, in sociology. Thus:

In Physics <sup>14</sup>	In Sociology <sup>14</sup>
Subfield of Mechanics	Subfield of "Social Physics"
(1) Time, $T$ stays	Time, $T$
(2) Distance, $L$ becomes	Indicators, $I$ , of any characteristic of people or of their environment. Distance, $L$ , may be treated either as a sub-class of $I$ or as a separate and coordinate class like $T$ and $P$
(3) Mass, $M$ becomes	Population, $P$ , the number of persons

<sup>14</sup> The formulas for the definitions in the text below are:

(4) Velocity, speed,  $L/T = V$

(5) Acceleration,  $L/T^2 = A$

(6) Momentum,  $ML/T = M_m$

(7) Force,  $ML/T^2 = MA = F$   
A changing momentum

(8) Energy,  $ML^2/T^2 = FL = E$   
A mass times a velocity squared, also, a force acting thru a distance

(9) Action,  $ML^2/T = ET$

(10)

(11) Energy of physical gravity, or attraction of masses  $ML^2/T^2 = GM^2/L$

(12)  $G = L^3M^{-2}T^{-2} = gL^2M^{-1}$   
 $\therefore g = LT^{-2}$

With these four primitive terms, or "sectors" of social phenomena (e.g., time,  $T$ ; space,  $L$ ; population,  $P$ ; and residual indicators,  $I$ ), their commonly needed combinations may be built up as follows.

The time rate of change in any of these four indices will be called a velocity, or speed.

The time rate of change of speed will be called a *celeration*—acceleration if the speed increases, deceleration if it decreases.

The sum of the velocities of a plurel will be called its *momentum*. The momentum is thus also the average velocity multiplied by the population mass that is changing in some respect.

The time rate of change of a social momentum will be called a social *force*. This effective force is also definable as the celeration times the population celerated. It is alternatively definable as the sum of the changes in the persons of a population per period per period.

A social force either acting through a physical distance or accomplishing an amount of change in some index will be called social *energy*. Energy is the product of a force and either a distance ( $L$ ) or other specified indicator ( $I$ ). The type of indicator defines the type of energy and the units in which it is expressed. Thus just as physics has particular units to measure mechanical, thermal, chemical or electrical energy,<sup>15</sup> so sociology has units of income, literacy, vot-

Rate of change,  $I/T$

Celeration,  $I/T^2$

Social momentum,  $PI/T$  or  $\Sigma I/T$

Social force,  $PI/T^2 = F$

A speeding up or slowing down of a population's rate of change of some characteristic  
Social energy,  $PI^2/T^2$  or  $IPL/T^2 = En$

A population times a velocity squared, also, a force times a distance

Social action,  $PI^2/T$  or  $PIL/T$

A momentum times a distance, also the number of acts times the distance divided by time

Interacting = number of acts between persons per period,  $P^2I/T = Ia$

Energy of group gravity, or energy of interaction of human masses,  $P^2I^2/T^2 = k PT^2/L$

Where  $IP$  on the right is the social equivalent of the physical mass,  $M$ ,  $k = \text{acceleration} = L/T^2$

ing, marriages, church attendance, deaths, etc., to measure economic, educational, familial, religious, health and other forces and forms of social energy.

Social energy applied throughout a period will be called social *action*. Action is then operationally defined in both physics and sociology as the product of an index of energy and a time period.

Human *interaction* is action between people who are stimulating and responding to each other. Its operational formula involves an algebraic matrix of the primitive dimensions in which people are multiplied by people. Psychologically, we speak of social interaction as the *product* of people acting with people.

The number of acts in a period (like phone calls or weddings) will be called the action rate or speed of that social process in that unit period. Its increase of speed over a previous period is its relative acceleration; while its increase of speed over a period at zero speed may be called its absolute acceleration. The number of interacts of persons, at some distance apart and during some period, is then the absolute amount of *interaction* under the conditions studied. It is also the absolute acceleration.

From the definitions (Eqs. 1-10)<sup>15</sup> cumulating to define human interaction as having the dimensions as in Eq. 10 and from its empirically observed tendency to equal the

interactance as expressed in Eq. 2 and 11B, it becomes possible to isolate the constant  $k$  and discover its dimensions. Isolating  $k$  from Eq. 11B as in Eq. 12B shows it to have the dimensions of acceleration, i.e., to be a rate of change of a rate of change. For it is the social counterpart of the physicist's acceleration of gravity,  $g$ , on our earth. Only just as  $g$  is about sixteen feet per second per second for terrestrial gravity and varies on other planets and even at different parts of our earth, similarly  $k$  seems a constant only for one type of interacting in one population and period. How much it will vary with further conditions awaits research. Its size for any one type of interacting is expected to approximate the reciprocal of the total amount of such interacting by Eq. 2B. Thus a major use of the dimensional definitions (Eq. 1-10) is to analyze out the nature and size of the "gravitational constant,"  $g$ , or class of interactional constants,  $k$ , in human groups.

#### A SPECULATORY NOTE ON GENERALIZING "GRAVITY"

In generalizing the concept and definitive formula for gravity from physics to sociology to all sciences, the number of interacting, yet statistically independent particles clustered in each group seems to a sociologist the essential variable whether the particles are molecules or persons or any other entities that fulfill the preconditions.

Then their ratio to the *space* they occupy is the *density* in general—whether observed in subforms as molecules per cubic centimeter in physics, or persons per square kilometer in sociology, and regardless of being packaged in particular familiar terms like "state of matter," "pressure," "household crowding," "rural vs urban," "lebensraum," etc.

Then the ratio of the number of acts of these particles to *time* is their *speed* of activity in general, whether observed as a temperature (i.e., billions of collisions per second in the case of molecules), a fever (i.e., oxidizing, etc. of protein and other molecules in physiology), an activity rate of people

<sup>15</sup>For fuller discussion of this operational and algebraic definition of a social force and its application to political forces, economic forces, educational forces, religious forces or many other forces changing people, see the author's *Dimensions of Society*, Macmillan, 1942, Ch. 10; *Systematic Social Science*, Seattle: University Bookstore, 1947 "A Theory for the Measurement of Some Social Forces," *Scientific Monthly*, XLIII (July, 1936); "The Standard Error of a Social Force," *Annals of Mathematical Statistics* (December, 1936); "Of What Use Is Dimensional Sociology," *Social Forces*, 22 (December, 1943).

A fruit of dimensional analysis, such as this, is that principles like the interactance hypothesis are deducible from them independently of the empirical observations which verify them. Thus interactance, Eq. 1A, is deducible from the definitions of the 4 dimensions of time, space, people and their complement class by using the formula for the area of a circle and the law of joint probability.

interacting in some community, or otherwise. It should be noted that neither the variations in density nor speed enter into the formula for the force of gravity.

Then the specific coefficient for each 'group,' or cluster of particles is a *cluster constant*<sup>18</sup> in general, whether observed as the specific mass of molecules of one class in physics, or as "level" of activity of one cultural group in sociology, or any constant which characterizes the ratio of the activity on the average of particles in any one cluster to the activity of other clusters.

Finally, the constant, *k*, is merely the average activity of the *class* or type of activity studied, whether of molecules (called gravity in physics) or of people (called interaction in sociology), or of any active entities (called activity in general).

This activity between clusters, or interacting, seems to us most generally to be analyzable into four broad concepts or basic classes of dimensions, namely, time, space, and particles with characteristics some of which (the *I*'s here) classify the particles into clusters while other characteristics (the *k*'s) classify the activity into various kinds, called "types" here. Then the law of physical gravity, the principle of human interactance, the law of mathematical joint probability and other forms of these generalizations all become special cases of a generalized interactance law or model (Eq. 1 with *P* generalized from people to mean any independent particles).

This law, it should be reiterated lest some

<sup>18</sup>The term "cluster" is not fully satisfactory. But alternative terms such as "aggregate," "set," "group," "molar," "swarm," etc., seem to have connotations still more unsatisfactory for the purpose of unifying terms between sciences in order to get greater generality of scientific laws.

readers misinterpret it, tells nothing about the nature of the interaction or why it occurs. It only states *how much* interacting is to be expected from aggregates of particles, *given* that those particles interact and are statistically independent.

It may be noted that Eq. 1 is a model whether or not the independent particles cluster. If the particles are unclustered hermits, the specific coefficients, *I*, are specific to each particle so that Eq. 1 remains true but less useful. The larger the homogeneous clusters, the more useful is Eq. 1. For as the number of particles in the clusters gets very large their mean activity and other statistics become increasingly stable (on reobserving under like conditions by the "law of large numbers"). This mean activity for each cluster we call the constant, *I*, and for each "type" of activity we call the constant, *k*. Their degree of constancy, however, is not absolute but relative to the preconditions, such as the four described above. And other concomitant variables or conditions may lower their constancy—just as the constant of physical gravity, *g*, has to be corrected for position on the earth's surface. All this means that Eq. 1 is a useful model of high generality which requires empirical research to determine its constants, *k* and *I*, and their degree of constancy under any set of specifiable and observable conditions that may be studied. This makes the model (or "scientific law") applicable in the future to those types of activity and to those clusterings of particles where the *k*'s and *I*'s are known. This furthers predicting and controlling the activity wherever all but one of the variables, *P<sub>A</sub>*, *P<sub>B</sub>*, *T*, *L*, are known, and Eq. 1 enables solving for one unknown variable—and such prediction and control are the function of all science and all its "laws."

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## A SET OF CATEGORIES FOR THE ANALYSIS OF SMALL GROUP INTERACTION\*

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IN A RECENT review of the state of research in the field of small groups, Edward Shils makes some remarks which aptly point up the problem to which this paper is addressed:

"Because problems are dimly 'felt,' because they are neither related to a general theory of behavior on the one side, nor rigorously connected with the categories and indices to be chosen for observation on the other, the results of the research can very seldom become part of the cumulative movement of truth which constitutes the growth of scientific knowledge. When concrete indices (and classifications) are not clearly related to the variables of a general theory of human behavior in society, they tend to be *ad hoc*. Under these conditions they are only with difficulty, applicable, i.e., translatable into another concrete situation by an investigator who seeks to confirm, revise, or disconfirm the previously 'established' proposition."<sup>1</sup>

Probably most of us have some difficulty in thinking of a session between a psychiatrist and patient, a corner boy's gang in a political huddle, and a staff conference of business executives as comparable within a single frame of reference. It is probably more difficult, for example, than thinking of the social systems of China, of Bali, and the United States as legitimate objects for comparative analysis. At least the latter three constitute full scale, and in some sense, complete social systems.

What do the former three groups have in common? They are small face-to-face groups. If we call them social systems, we shall have to say that they are partial, as

well as microscopic social systems. To place a slightly different emphasis, it can be said that they are systems of human interaction. At this degree of abstraction there is no necessary incongruity in comparing them with each other, or with full-scale social systems. Both small groups and complete societies can be viewed as types of interaction systems, even though one is tremendously more inclusive than the other. If this point of view turns out to be excessively formal or abstract, we may have to retreat to less generalized frames of reference.

To take the more hopeful view, it may very well be that one of the main contributions of the study of small groups will be an expanding of the range of available empirical data in such a way as to force our theory of social systems to a more general and powerful level of abstraction. If the theory of social systems has been generalized and strengthened by the necessity of making it applicable to a range of full-scale social systems, non-literate as well as literate, Eastern as well as Western, then there is at least the possibility that it will be further strengthened by the necessity of making it applicable up and down the scale from large to small.

However this may be, the present set of categories was developed with this hope, and took its initial point of departure from a body of theory about the structure and dynamics of full-scale social systems. This will not be immediately apparent in viewing the set of categories, nor can it be spelled out to any satisfactory degree in this article. A manual dealing with both the theoretical and practical aspects of the method for those who may wish to apply it in their own research has recently been published.<sup>2</sup> The

\* Paper read at the annual meeting of the American Sociological Society held in New York, December 28-30, 1949.

† The development of the method reported here has been made possible through the support of the Laboratory of Social Relations, Harvard University.

<sup>1</sup> Edward Shils, *The Present State of American Sociology*, Glencoe, Illinois: The Free Press, 1948, p. 45.

<sup>2</sup> Robert F. Bales, *Interaction Process Analysis; A Method For the Study of Small Groups*, Cambridge, Massachusetts: Addison-Wesley Press, 1950.

present paper will give only a simplified introductory description of the method and some of its possible uses.

#### DESCRIPTION OF THE METHOD

The method is called interaction process analysis. It is a type of content analysis in the basic sense, but the type of content

descriptive of group process, and derivatively, of factors influencing that process. The set of categories as it actually appears on the observation form is shown under the twelve numbers in Chart 1. The outer brackets and labels do not appear on the observation form, but constitute a part of the mental set of the observer. The twelve

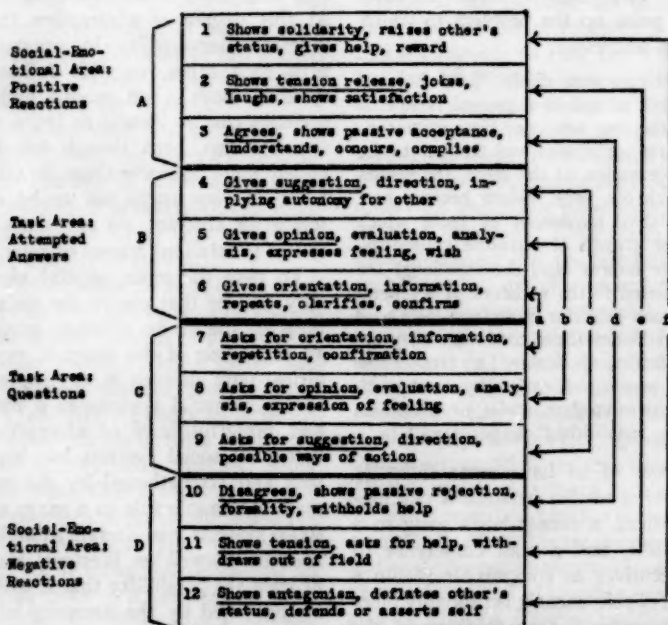


CHART. 1. The System of Categories Used in Observation and Their Relation to Major Frames of Reference.

#### Key:

- |                            |                         |                                   |
|----------------------------|-------------------------|-----------------------------------|
| a. Problems of orientation | c. Problems of control  | e. Problems of tension-management |
| b. Problems of evaluation  | d. Problems of decision | f. Problems of integration        |

which it attempts to abstract from the raw material of observation is the type of problem-solving relevance of each act for the total on-going process. Hence it has seemed less confusing to refer to what we are doing as "process analysis" rather than as "content analysis."

The heart of the method is a way of classifying behavior act by act, as it occurs in small face-to-face groups, and a series of ways of analyzing the data to obtain indices

observation categories are numbered from the top down, but are arranged in a series of complementary pairs proceeding from the center pair, 6 and 7, outward. The phrases and terms within the numbered categories are only catch-phrases designed to be concretely descriptive of the implied theoretical content of the categories in their usual forms. Actually there are extended definitions of each of the categories, and the central meaning of each is given by its posi-

tion in the frames of reference to which they are all related as indicated by the labeled brackets on the Chart.

The set of twelve categories (and the actual behavior which is classified under them) are brought into working relation to other bodies of theory<sup>3</sup> in terms of the frame of reference. The key assumption which provides this articulation is the notion that all organized and at least partially cooperative systems of human interaction, from the smallest to the most inclusive, and of whatever concrete variety, may be approached for scientific analysis by abstracting from the events which go on within them in such a way as to relate the consequences of these events to a set of concepts formulating what are hypothetically called "functional problems of interaction systems."

For purposes of the present set of categories we postulate six interlocking functional problems which are logically applicable to any concrete type of interaction system. As indicated in Chart 1, these are in one-word terms: problems of orientation, evaluation, control, decision, tension-management, and integration. These terms are all related to a hypothetical conception of an over-arching problem-solving sequence of interaction between two or more persons. As a concrete first approximation we may find it helpful to think of the functional problems as related in an order of "stages" or "steps" in a problem-solving sequence, as their order suggests. Actually this is an over-simplified view. However, in order to illustrate the notion of stages as they may appear under certain conditions, let us take a short description of a fictional group meeting. The same example will serve to illustrate the method of scoring with the categories.

<sup>3</sup>More specifically, theory applying to larger social systems, and perhaps also theory applying to personality. There seems to be no particular incongruity in thinking of the personality as an interaction system, if we understand by this, not a system of "persons," but a system of interdependent acts or potential acts. This, in fact, seems to me to be the character of much of contemporary personality theory.

#### HOW THE SCORING IS DONE

Let us imagine we are observing a group of five persons who are meeting together to come to a decision about a point of policy in a project they are doing together. Three or four of the members have arrived, and while they wait they are laughing and joking together, exchanging pleasantries and "small talk" before getting down to business. The missing members arrive, and after a little more scattered conversation the chairman calls the meeting to order. Usually, though not necessarily, this is where the observer begins his scoring.

*Stage 1. Emphasis on problems of orientation: (deciding what the situation is like).* The chairman brings the meeting up to date with a few informal remarks. He says, "At the end of our last meeting we decided that we would have to consider our budget before laying out plans in greater detail." The observer, sitting with the observation form in front of him, looks over the list of twelve categories and decides that this remark is most relevant to the problem of orientation, and specifically that it takes the form of an "attempted answer" to this problem, and so he classifies it in Category 6, "Gives orientation, information, repeats, clarifies, confirms." The observer has already decided that he will designate the chairman by the number 1, and each person around the table in turn by the numbers 2, 3, 4, and 5. The group as a whole will be designated by the symbol 0. This remark was made by the chairman and was apparently addressed to the group as a whole, so the observer writes down the symbols 1-0 in one of the spaces following Category 6 on the observation form.

In this one operation, the observer has thus isolated a unit of speech or process which he considers a proper unit for classification, has classified it, identified the member who performed the act, and the person or persons to whom it was directed. If he were writing on a moving tape instead of a paper form, as we do for some purposes,<sup>4</sup>

<sup>4</sup>Robert F. Bales and Henry Gerbrands, "The

he would also have identified the exact position of the act in sequence with all others. In practice we find that we obtain from 10 to 20 scores per minute in keeping up with most interaction, and that this speed is not excessive for a trained observer.

As the chairman finishes his remark, Member 2 asks the chairman, "Has anybody gone over our expenditures to date?" The observer decides that this is a "question" indicating that a problem of orientation exists, and so should be classified in Category 7, "Asks for orientation, information, repetition, confirmation." He so records it by placing the symbols 2-1 in a box following this category. The chairman replies, "I have here a report prepared by Miss Smith on the expenditures to date." The observer marks down the symbols 1-2 under Category 6, as an "attempted answer" to the indicated problem of orientation. As the chairman goes over the report the observer continues to score, getting a good many scores in Categories 6 and 7, but also occasional scores in other categories.

*Stage 2. Emphasis on problems of evaluation: (deciding what attitudes should be taken toward the situation).* As the chairman finishes reviewing the items on the report he may ask, "Have we been within bounds on our expenditures so far?" The observer puts down a score under Category 8, "Asks for opinion, evaluation, analysis, expression of feeling." Member 3 says, "It seems to me that we have gone in pretty heavily for secretarial help." The observer puts down a score in Category 5, "Gives opinion, evaluation, analysis, expresses feeling." Member 4 comes in with the remark, "Well I don't know. It seems to me . . ." The observer puts down the symbols 4-3 in Category 10, "Disagrees, shows passive rejection, formality, withholds help," and continues with scores in Category 5 as Member 4 makes his argument. The discussion continues to revolve around the analysis of expenditures, with a good many scores falling in Category 5, but also in others, particularly Categories

10 and 3, and interspersed with a number in Categories 6 and 7 as opinions are explained and supported.

*Stage 3. Emphasis on problems of control: (deciding what to do about it).* Finally the chairman says, "Well a little more than half our time is gone." The observer scores 1-0 in Category 6. "Do you want to go ahead and decide whether we should buy that piece of equipment or . . ." The observer scores 1-0 in Category 9, "Asks for suggestion, direction, possible ways of action." Member 2 says, "I think we should get it." The observer scores 2-0 in Category 4, "Gives suggestion, direction, implying autonomy for other." As Member 2 begins to support his suggestion, Member 3 breaks in with a counter argument, and the discussion begins to grow more heated.

The observer begins to have trouble in keeping up as the members are talking more rapidly and some remarks are left unfinished. He does not forget to keep scanning the group, however, and presently he notices that Member 5, who has said little up to this point, sighs heavily and begins to examine his fingernails. The observer puts down a score under Category 11, "Shows tension, asks for help, withdraws out of field." He enters this score as 5-y, since he has decided ahead of time to use the symbol y to stand for "self," and to use it when activity is directed toward the self, or is expressive and non-focal, that is, not directed toward other members.

Meantime, Member 3, the chronic objector, comes through with a remark directed at Member 2, "Well, I never did agree about hiring that deadhead secretary. All she's got is looks, but I guess that's enough for Joe." The others laugh at this. The observer scores the first and second remarks under Category 12, "Shows antagonism, deflates other's status, defends or asserts self." The laugh which follows is scored in Category 2, "Shows tension release, jokes, laughs, shows satisfaction." In this case the score is written 0-3, all to Member 3.

At this point Member 5 comes in quietly to sum up the argument, and by the time he finishes several heads are nodding. The

observer scores both the nods and the audible agreements in Category 3, "Agrees, shows passive acceptance, understands, concurs, complies." The chairman says, "Then it looks like we are in agreement." The observer scores in Category 6, and scores the answering nods in Category 3. Member 3, the chronic objector, who is also the chronic joker, comes in with a joke at this point, and the joking and laughing continue for a minute or two, each member extending the joke a little. The observer continues to score in Category 2 as long as this activity continues. As the members pick up their things one of them says, "Well, I think we got through that in good shape. Old Bill certainly puts in the right word at the right time, doesn't he." The observer marks down two scores under Category 1, "Shows solidarity, raises other's status, gives help, reward," and after a few more similar remarks the meeting breaks up.

#### THE POSSIBILITY OF EMPIRICAL NORMS

The foregoing is a fictional example, designed to illustrate the nature of the scoring operation, as well as a kind of hypothetical sequence of stages which may occur under certain conditions. To summarize, we might say that during the course of this meeting there were a series of "phases" portrayed, during which one or more of the functional problems included in our conceptual framework received more than its usual share of attention. The temporal order of these phases in this fictional example follows in a rough way the logical order in which we arrange the categories on the observation form in pairs from the center line outward, that is, as dealing with problems of orientation, evaluation, control, and then in rapid order, a special emphasis on final decision, tension reduction, and reintegration. Each of the major functional problems has been made into an implicit "agenda topic."

The categories of activity as classified by the present system are assumed to bear a functional relation to each other similar to the relation of the phases in the meeting just portrayed. The example has been constructed so that in its phases the relations

of the categories to each other are "written large," to borrow an idea from Plato. Hence it is relevant to ask what degree the notion of phases on the larger scale is actually to be taken as an empirical description rather than as a logical model. It is important to emphasize in answer to this question that we do not assume nor believe that all group meetings actually proceed in just this way. One of the thorniest problems in the history of thinking about the process of small groups is whether or not, or in what sense there may be a series of "steps" or "stages" in group problem solving. Data will later be published which indicate that under *certain conditions*, which must be carefully specified, a group problem-solving process essentially like that sketched above, does tend to appear. The data indicate that the sequence described is a kind of average sequence for problem-solving groups, that is, an empirical norm. It further appears that departures from the average picture can be used as diagnostic indicators of the nature of the conditions under which interaction takes place.

Similarly, it appears that there are empirical uniformities in the way activities are distributed between persons. We have some data which indicate that, on the average, if we rank order participants according to the total number of acts they originate, they will then also stand in rank order as to (1) the number of acts they originate to the group as a whole (to 0), (2) the number of acts they originate to specific other members of the group, and (3) the number of acts they receive from all other members of the group. In addition, (4) each person in the rank order series addresses a slightly larger amount of activity to the person just above him in the series than the person above addresses to him, with the top person addressing the group as a whole to a disproportionate degree. It seems likely that these uniformities can be tied together in a more comprehensive theory, and that departures from this average picture can be used as a diagnostic indicator of the nature of the conditions under which interaction takes place. Data on this problem will be published later.

Similarly, ignoring time sequence and the specific persons who initiate or receive acts, empirical uniformities appear in the gross frequency with each category of activity tends to occur. Preliminary data on these uniformities are given below.

FREQUENCY OF OCCURRENCE OF EACH  
TYPE OF ACTIVITY

We have available for this tabulation some 23,000 scores in terms of the present twelve

TABLE 1. RAW SCORES OBTAINED ON ALL INTERACTION OBSERVED TO DATE, PERCENTAGE RATES, AND SUGGESTED LIMITS, BY CATEGORIES

Category	Raw Scores	Percentage	Suggested Limits for Inspection of Profiles*	
			Lower	Upper
1	246	1.0	0.0	5.0
2	1675	7.3	3.0	14.0
3	2798	12.2	6.0	20.0
4	1187	5.2	2.0	11.0
5	6897	30.0	21.0	40.0
6	4881	21.2	14.0	30.0
7	1229	5.4	2.0	11.0
8	809	3.5	1.0	9.0
9	172	.8	0.0	5.0
10	1509	6.6	3.0	13.0
11	1009	4.4	1.0	10.0
12	558	2.4	0.0	7.0
	22970	100.0		

\* Suggested limits shown have been established for each category by use of binomial confidence limits given in Snedecor, *Statistical Methods*, 1946, p. 4, with  $p$  equal "Percentage of total" and  $n$  equal 100. This provides relatively wider ranges for the smaller values and although such conventions do not properly reflect the multinomial character of the variation, they provide a first approximation for present purposes.

categories, from observations of groups of different sizes and kinds, ranging through nursery school children, high school and college students, married couples, college faculty discussions, etc., on tasks of widely different kinds. We do not know how badly biased this collection of scores may be as a sample of something larger. They are simply all of the raw scores we have to date

on all of the groups and tasks we happen to have observed for a variety of reasons. The scorings were made by the present author. The general problems of reliability are treated in the manual mentioned above.<sup>5</sup> Very briefly it may be said that satisfactory reliability has been obtained between observers, but requires intensive training which should be regarded as an integral part of the method.

Table 1 shows the raw scores and their percentage distribution (or rates) in the twelve categories. In order to have certain conventional limits for inspection of the variability of particular profiles we have employed an external criterion rather than utilize the variance of our samples, which are known to be quite heterogeneous. Our experience indicates that when the rate for a given category on a particular profile is outside the range suggested in Table 1, we are usually able to connect the deviation with some more or less obvious source of variation in the conditions under which the interaction took place. For example, we find that a profile of nursery school children at free play is over the suggested limits on showing solidarity and showing antagonism, on giving direct suggestions and on disagreement, and is under the limits on asking for opinion, giving orientation, and giving opinion. A group of high school boys in group discussion is over the limits on laughing and joking, and under the limits on giving orientation. A group of faculty members planning a thesis problem with a graduate student is within the limits on all categories.<sup>6</sup> Pending the development of a satisfactory typology of groups, tasks, and other sources of variation, and the accumulation of more experience, this arbitrary procedure for detecting "significant variations" may serve a useful purpose.

#### APPLICABILITY OF THE METHOD

Verbal interaction accounts for the largest part of the scores, but the categories apply to non-verbal interaction as well. Groups of manageable size for the method fall in the

<sup>5</sup> See footnote 2, above.

range between two and perhaps twenty, but there is no definitely established top limit—the top manageable size depends upon the character of the interaction. The method is most easily applied in groups where the attention of the members tends to focus in turn on single speakers or members, as in most discussion groups. Hence it might be said to apply to groups small enough so that each member potentially takes into account the reactions of each of the others.

In concrete terms, the groups which one might be able to study with the method are very diverse. They would include a series of groups concerned primarily with substantive problems external to their own process, such as discussion groups, planning groups, policy forming and executive committees, boards and panels, diagnostic councils in clinical work, seminars and classroom groups, teams and work groups, certain kinds of problem-solving groups in experimental social psychology and sociology, etc. In addition, there are certain groups with a primary focus on their own procedure in an impersonal way, for training purposes, such as those formed for training in basic human relations skills, now an important branch of small group research. In a less impersonal way, there are large numbers of

small groups which have the interaction or interpersonal relations of the members as a primary focus, whatever their concern with substantive external problems. These would include family and household groups, children's play groups, adolescent gangs, adult cliques, social and recreational clubs, and small associations of a great many kinds. Finally there are groups which might be said to have a primary focus on problems of personal content or experience of members, such as therapy or confessional groups of various kinds, and groups of two, such as therapist and patient, counselor and client, interviewer and interviewee, and a number of others in the general class of professional specialist and client.

Some of these types of groups have been studied with the present method or others similar to it. Some of them are unexplored as yet. Taken together, however, the total range of possible types of groups constitutes a challenging array. If interaction in groups of the diverse sorts mentioned can be brought within the range of a single frame of reference, and can be made to yield data by the same method of analysis, we should be some distance along toward meeting the difficulties which Shils indicates in the comments at the beginning of this paper.

# GENERALIZATIONS CONCERNING THE ECOLOGY OF THE AMERICAN CITY

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THE PRESENT paper is an attempt to formulate a number of generalizations concerning the internal structure of the large American city. In planning this study every effort was made (1) to select a relatively large, statistically comparable and representative group of American cities; (2) to utilize relevant, comprehensive, and reliable quantitative and other data; and (3) to follow systematic and rigorous techniques in analyzing these data.

The basic data for this study were taken from the series of census tract bulletins prepared by the U. S. Bureau of the Census in connection with the sixteenth decennial census taken as of April 1, 1940. The primary sample consists of 20 American cities of comparable size. In developing a model for an analysis of this kind it was felt that the results could be invalidated if the group of cities selected did not possess some degree of statistical comparability. Accordingly, cities that were within a relatively narrow total population range and at the same time did not vary widely in the average size of census tracts were included in the primary sample. It will be observed from Table I that in total population these cities range from approximately 200,000 (Dayton, 210,718) to 500,000 (New Orleans, 494,537); the mean population size of census tracts varies from approximately 3,600 (3,585 for Louisville) to 5,100 (5,146 for Birmingham).<sup>1</sup> In

over-all population density, land area, and certain other characteristics, these cities show much wider differences (Table I).

With respect to other characteristics, the 20 sample cities are widely representative of the large urban community. In terms of basic economic types 16 cities are "diversified" (Mr and Rm) and 4 "manufacturing" (Mm). Of the "diversified" group, 12 are primarily retail with manufacturing secondary (Type Rm) and 4 are primarily manufacturing with retail secondary (Type Mr).<sup>2</sup> Also, these cities are markedly different in

26 were between 200,000 (Oklahoma City, 204,424) and 500,000 (New Orleans, 494,537). The 6 cities in this class not included in the present study are Denver, Houston, Jersey City, Newark, Oklahoma City, and Syracuse. In the case of Denver and Houston, the mean size of census tracts was above 5,100 (7,328 for Denver and 7,690 for Houston) whereas the mean size of census tracts was less than 3,600 for Oklahoma City (3,407) and Syracuse (3,377). Jersey City and Newark were excluded because of relatively high population densities of 21,061 and 18,210 persons per square mile, respectively.

<sup>1</sup>In one type of diversified city (Mr), manufacturing is predominant and retail trade is second in importance. This group includes all cities in which employment in manufacturing is less than 50 per cent of the aggregate employment but greater than employment in retail trade. In the other type of diversified city (Rm), retail trade is predominant and employment in manufacturing is more than 20 but less than 50 per cent. In manufacturing cities (Mm), employment in manufacturing is 50 per cent or more of the aggregate employment in manufactures, trade and service establishments; and employment in retail trade was less than 30 per cent. The first figure in the second column of Table I indicates the "employment-residence ratio"—the proportion of the population in the resident labor force, while the second figure represents the "manufacturing ratio"—the proportion of employment in manufacturing. For more details concerning this particular economic classification of cities see Grace Kneeder Ohlson, "Economic Classification of Cities," *The Municipal Year Book*, 1948, pp. 31-70.

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<sup>1</sup>There were 60 tracted cities in the United States when the 1940 Census was taken. Of these 60 cities,

TABLE I. TYPE, POPULATION, AREA, DENSITY, NUMBER OF CENSUS TRACTS, AND MEAN SIZES (AREA AND POPULATION) OF CENSUS TRACTS FOR A SAMPLE OF 20 CITIES OF COMPARABLE SIZE WITH SUPPLEMENTARY DATA FOR TWO SMALLER CITIES AND ONE LARGER CITY: 1940

City	Econ. Classif.*		Population		Land Area		Pop. Density		No. of Census Tracts		Mean Size of Census Tracts			
	Eco- nomic Base	Employ. Resid. & Mfg. Ratios	Number	Rank	Size (Square Miles)	Rank	People per Sq. Mile	Rank	No.	Rank	Pop.	Rank	Area Sq. Mile	Rank
Sample Cities														
Akron, Ohio.....	Mm	67-60	244,791	19	53.7	8	4,558	19	57	16	4,295	9	.942	4
Atlanta, Ga.....	Rm	85-30	302,288	11	34.7	18	8,712	5	75	10.5	4,031	13	.463	15
Birmingham, Ala.....	Rm	40-31	267,583	17	50.2	11	5,330	17	52	19	5,146	2	.965	3
Cincinnati, Ohio.....	Mr	66-47	455,010	3	72.4	2	6,293	13	107	3.5	4,258	10	.677	9
Columbus, Ohio.....	Rm	51-38	306,087	9	39.0	14	7,848	7	61	13	5,018	6	.639	11
Dallas, Texas.....	Rm	49-22	294,734	13	40.6	13	7,259	9	58	15	5,082	5	.700	7
Dayton, Ohio.....	Mm	67-57	210,718	20	23.7	19	8,891	4	53	18	3,976	14	.447	16
Indianapolis, Ind.....	Mr	58-42	386,972	5	53.6	6	7,220	10	107	3.5	3,617	19	.501	14
Kansas City, Mo.....	Rm	56-27	399,178	4	58.6	5	6,812	11	92	5	4,339	8	.637	12
Louisville, Ky.....	Mr	54-45	319,077	8	37.9	15	8,419	6	89	6	3,585	20	.426	18
Memphis, Tenn.....	Rm	42-28	292,942	14	45.6	14	6,424	12	75	10.5	3,906	15	.608	13
Minneapolis, Minn.....	Rm	50-28	492,370	2	53.8	7	9,152	3	121	2	4,069	12	.445	17
New Orleans, La.....	Rm	44-26	494,537	1	199.4	1	2,480	20	133	1	3,718	17	1.499	1
Oakland, Calif.....	Rm	46-30	302,163	12	52.8	9	5,723	14	72	12	4,197	11	.733	6
Portland, Ore.....	Rm	51-26	305,394	10	63.5	4	4,869	18	60	14	5,090	4	1.058	2
Providence, R. I.....	Mm	77-57	253,594	18	17.9	20	14,162	1	40	20	5,174	1	.365	20
Rochester, N. Y.....	Mm	66-58	324,975	7	34.8	17	9,338	2	88	7	3,693	18	.395	19
Seattle, Wash.....	Rm	54-26	368,302	6	68.5	3	5,377	16	79	8	4,662	7	.867	5
St. Paul, Minn.....	Rm	52-30	287,736	15	52.2	10	5,512	15	76	9	3,786	16	.687	8
Toledo, Ohio.....	Mr	58-49	282,349	16	37.1	16	7,611	8	55	17	5,134	3	.675	10
Small Cities														
Berkeley, Calif.....	S	26-31	85,547	—	9.4	—	9,101	—	26	—	3,290	—	.362	—
Macon, Ga.....	Mr	51-43	57,865	—	8.0	—	7,233	—	17	—	3,404	—	.471	—
Large City														
Detroit, Mich.....	Mm	54-54	1,623,452	—	137.9	—	11,773	—	369	—	4,400	—	.374	—

\* For a detailed explanation of economic classification of cities see text.

other significant ways such as (1) age, (2) topography, (3) regional location, (4) site location (e.g., coastal, river, etc.), (5) location in relation to other larger and/or smaller cities (e.g., Minneapolis and St. Paul, Cincinnati and its satellites, etc.), (6) population composition, and (7) rate of population growth.<sup>3</sup>

When the analyses for the 20 cities in the primary sample began to manifest such definitive and consistent patterns, 2 smaller cities, Berkeley (85,547) and Macon (57,865) and one larger city, Detroit (1,623,452), were studied for comparative purposes. These three cities were selected especially because they varied so widely in size and other characteristics from the original group (see Table I).

The central theory of this analysis can

<sup>3</sup>The validity and reliability of the generalizations presented in this study could be strengthened in at least two ways: First, instead of selecting a group of cities defined in terms of statistical comparability, all of the 60 tracted cities, or at least an adequate randomized sample of these cities, might be chosen for analysis. It should be emphasized that in the early stages of this study care was taken to select a group of cities of comparable size in order to insure an adequate basis for testing certain hypotheses. The strikingly consistent patterns later revealed were not originally expected. It is the opinion of the present investigator that the ecological structure of all large American cities conform to the basic patterns set forth in this study. Second, it also would be of value to duplicate the present study either in whole or in part for more than one period of time. Comparable data, however, will not be available until the 1950 Census. Partial data based on the 1930 Census and the 1934 Real Property Inventory tend to corroborate some of the findings of this paper. See for example, P. K. Whelpton, "Geographic and Economic Differentials in Fertility," *Annals of the American Academy of Political and Social Science*, 188 (November, 1936), 37-55; Warren S. Thompson and Nelle J. Ruth, "Ratio of Children to Women in Chicago and Cleveland Census Tracts, 1930," *American Sociological Review*, 4 (December, 1939), 773-791; Calvin F. Schmid, *Social Saga of Two Cities*, esp. p. 128 and pp. 164-168 and 180-301; Richard O. Lang, *The Relation of Educational Status to Economic Status in the City of Chicago, by Census Tracts, 1934*, Unpublished Doctor's Thesis, University of Chicago, 1936, *passim*. The present author plans to make systematic follow-up studies using both 1940 and 1950 census data.

be stated as follows: *The ecological structure of the large American city conforms to a consistent and regular pattern in which the socio-economic status of the population is a dominant feature.*

For purposes of clarifying, elaborating, and validating the central theory, a series of more specific empirically tested generalizations will be set forth.

The basic data used in the analyses are represented by 12 indices arranged according to census tracts for the 23 cities in the sample. All of these indices possess important sociological significance. Our primary interest in these indices however is to utilize them as a means of establishing a series of basic principles concerning the ecological structure of the large American city.

It will be observed from Tables II to IV that most of the indices reflect social stratification. Although these indices are to a greater or less degree interrelated, they can be subsumed under the following general categories:

**Income:** contract or estimated monthly mean rent

**Occupational status:** (1) proportion of population in the labor force classified as professional workers, (2) proprietors, managers and officials, and (3) laborers

**Employment status:** proportion of population in the labor force seeking work (unemployed)

**Educational status:** (1) proportion of the population 25 years of age and over classified as college graduates and (2) median school-grade completed for population 25 years of age and over

**Race and nativity:** (1) percentage of total population classified as Negro and (2) foreign-born white population

**Fertility:** ratio of children under 5 to females 15-44 years of age

**Sex:** proportion of total population classified as males

**Age:** (1) proportion of total population 60 years of age and over and (2) proportion under 15 years of age

Tables II to IV and Figure 1 summarize in the form of more than 400 coefficients of correlation, approximately 200 correlation ratios, and several scatter diagrams and re-

gression lines, the relationships and regularities of the ecological patterning of the large urban community. The same basic relationships obtain not only for the 20 cities comprising the primary sample but for the two smaller cities and one larger city as well. On the whole there are comparatively few deviations from the general pattern.

#### CORRELATION OF MEAN RENT (INCOME) WITH OTHER INDICES

The coefficients of correlation, for example, between mean rent (income) and proportion of the population in the labor force classified as proprietors, managers and officials for all 23 cities vary from +.80 for Rochester to +.98 for Macon.\* Only one city (Rochester) shows a coefficient of less than +.85. Similarly, there is a high positive relationship between mean rent and the percentage of the population 25 years of age and over classified as college graduates. The lowest coefficient of correlation is +.79 (Minneapolis) and the highest, +.95 (Birmingham and Providence). Only 2 cities (Minneapolis and Macon) indicate coefficients of less than +.80. There also is a consistently high positive correlation between mean rent and the proportion of the population in the labor force classified as professional workers. Most of the correlation coefficients vary between +.70 and +.90. The lowest coefficient, +.48, is evidenced by Akron and the highest, +.91, by Macon. There are three cities with coefficients of less than +.70: Akron

(+.48), Minneapolis (+.57) and Cincinnati (+.67).

The Pearsonian coefficient of correlation tends to understate the degree of correspondence between many of the indices discussed in this paper since the relationship between the indices is markedly curvilinear. For example, the lowest "r" in the series mean rent and professional workers is +.48 for the city of Akron. This coefficient, however, is appreciably lower than the corresponding "η's":  $\eta_{xy} = .83$  and  $\eta_{yx} = .90$ . It will be observed from Table III that the mid-rank "r" is +.79 for mean rent and professional workers as compared to  $\eta_{xy}$  of .85 and  $\eta_{yx}$  of .91. As would be expected, the disparity between the "r's" and "η's" for the cities in the highest ranking category is not as large as in the case of the mid-point and lowest ranking cities.

On the other hand, as would be expected, mean rent is related inversely to the percentage of the population in the labor force seeking work and to the percentage classified as laborers. Two cities, Louisville and Detroit each with r's of -.67, are the only cities with coefficients of less than -.72 for mean rental and percentage of the population seeking work. The highest coefficient in this series is -.93 (Macon). It is especially significant to note that the Pearsonian r's of -.67 for Louisville and Detroit show the following η values:  $\eta_{xy} = .92$  and  $\eta_{yx} = .92$  for Louisville and  $\eta_{xy} = .85$  and  $\eta_{yx} = .84$  for Detroit. The coefficients of correlation between mean rent and percentage of laborers range from -.50 (Akron) to -.75 (Dayton). The corresponding η's are  $\eta_{xy} = .74$  and  $\eta_{yx} = .65$  for Akron and  $\eta_{xy} = .91$  and  $\eta_{yx} = .83$  for Dayton.

Table II also indicates that the Negro and foreign-born white populations tend to reside in low-rent areas. In five of the ten cities selected for study the coefficients of correlation between mean rent and the percentage of the population that is foreign-born white range between -.61 and -.63.<sup>5</sup>

\* Only cities with 10 per cent or more of their populations classified as Negro or foreign-born white respectively are included in this analysis.

<sup>5</sup> The coefficients of correlation and other measures are based on all of the census tracts (except in the case of a few census tracts in Detroit and one in New Orleans where the populations were very small) for each of the 23 cities included in this analysis. Accordingly, it is not clear what the conventional measures of significance indicate. Nevertheless, the 400-odd coefficients of correlation in Tables II and III were carefully checked and only about 30 were found not to be "significant" at the 5 per cent level. For the most part these coefficients are less than  $\pm .10$  and a few slightly more depending on the number of census tracts in a particular city. In a study such as this one the question of reliability of percentages and rates for census tract data poses a more important problem. Careful inspection was made of the data from this point of view.

TABLE II. INTERCORRELATIONS BETWEEN MEAN RENT AND CERTAIN VARIABLES BY CENSUS TRACTS FOR A SAMPLE OF 20 CITIES OF COMPARABLE SIZE WITH SUPPLEMENTARY DATA FOR TWO SMALLER CITIES AND ONE LARGER CITY: 1940

City	Mean Rent Correlated with Percentages										Children 0-4 to Fe- males 15-44
	Foreign Born**	College Grad.	Prof. Workers	Prop. and Managers	Laborers	Seeking Work	60 and Over	Under 15	Males	Negroes**	
<i>Sample Cities</i>											
1. Akron.....	-.32†	+.04	+.48†	+.04	-.50†	-.74	+.09	-.33	-.62	—	-.49
2. Atlanta.....	—	+.90†	+.86	+.90†	-.62	-.83	+.46	-.61	-.14	-.52	-.49
3. Birmingham.....	—	+.95*	+.84	+.95*	-.73	-.78	+.73*	-.72*	-.07†	-.75*	-.58
4. Cincinnati.....	—	+.85	+.67	+.89	-.59	-.75	+.38	-.53	-.50†	-.32	-.55
5. Columbus.....	—	+.82	+.76	+.89	-.67	-.72	+.32	-.44	-.50†	-.33	-.56
6. Dallas.....	—	+.89	+.79†	+.85	-.59	-.73	+.39	-.64	-.49	-.43†	-.51†
7. Dayton.....	—	+.82	+.81	+.89	-.75*	-.79	+.09	-.47	-.45	—	-.58
8. Indianapolis.....	—	+.91	+.73	+.94	-.67	-.72	+.23†	-.51	-.54	-.35†	-.57
9. Kansas City.....	—	+.94	+.80	+.91	-.58	-.73	+.08	-.26	-.46	-.18†	-.45
10. Louisville.....	—	+.94	+.85	+.86	-.60	-.67†	+.26	-.31	-.44	-.33	-.29
11. Memphis.....	—	+.87	+.75	+.94	-.71	-.84*	+.24	-.41†	-.33	-.75*	-.39
12. Minneapolis.....	-.50	+.79†	+.57	+.89	-.71	-.80	-.06	-.20	-.56	—	-.54
13. New Orleans.....	—	+.91	+.73	+.91	-.63	-.77†	+.50	-.43	-.35	-.47	-.39
14. Oakland.....	-.63*	+.90†	+.88*	+.87	-.64	-.77†	-.09	-.13	-.47	—	-.37
15. Portland.....	-.44	+.93	+.86	+.86	-.73	-.78	-.32	-.54	-.54	—	-.20
16. Providence.....	-.58†	+.95*	+.86	+.91	-.66†	-.79	+.53	-.51	-.75*	—	-.71*
17. Rochester.....	-.61†	+.81	+.71	+.80†	-.51	-.79	+.28	-.38	-.53	—	-.51†
18. Seattle.....	-.62	+.87	+.74	+.87	-.67	-.72	+.46†	+.24†	-.50†	—	-.04†
19. St. Paul.....	-.63*	+.83	+.74	+.92	-.70	-.79	+.13	-.29	-.51	—	-.57
20. Toledo.....	—	+.91	+.87	+.94	-.69	-.77†	+.09	-.38	-.61	—	-.53
<i>Small Cities</i>											
21. Berkeley.....	-.64	+.82	+.77	+.94	-.65	-.78	+.12	-.14	-.58	—	-.46
22. Macon.....	—	+.76	+.91	+.98	-.67	-.93	+.89	-.77	-.23	-.78	-.56
<i>Large City</i>											
23. Detroit.....	-.15	+.92	+.84	+.87	-.58	-.67	+.15	-.27	-.48	-.28	-.35

\*\* Only cities with 10 per cent or more foreign-born white or 10 per cent or more Negro. Detroit included with 9.2 per cent Negro. \* Highest, † mid-rank and ‡ lowest coefficients of correlation (20 sample cities).

\*\* Only cities with 10 per cent or more foreign-born white or 10 per cent or more Negro. Detroit included with 9.2 per cent Negro. \* Highest, † mid-range and ‡ lowest coefficients of correlation (20 sample cities).

# INTERCORRELATIONS OF CERTAIN VARIABLES TWELVE SELECTED CITIES: 1940

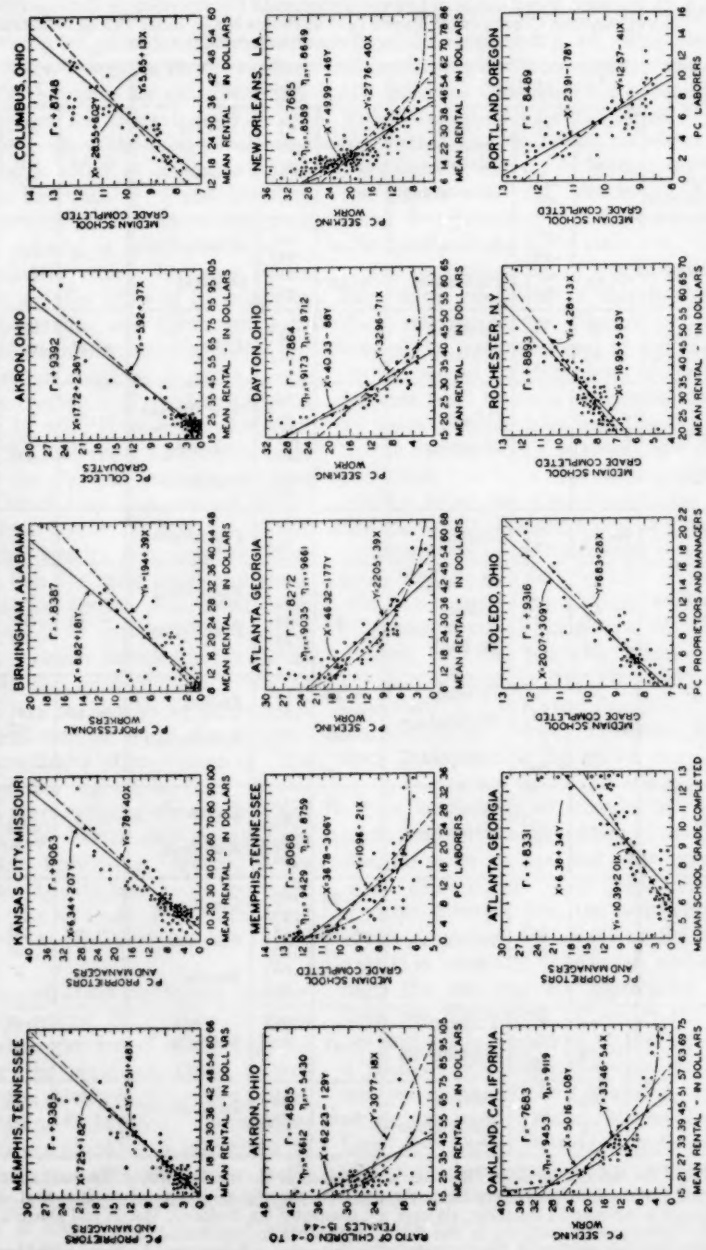


Fig. 1

TABLE III. HIGHEST, MID-RANK, AND LOWEST RECTILINEAR COEFFICIENTS OF CORRELATION ( $r$ 's) AND CORRESPONDING CORRELATION RATIOS ( $\eta$ 's) BETWEEN MEAN RENT AND ELEVEN OTHER INDICES FOR TWENTY-THREE AMERICAN CITIES: 1940

Index	Highest*			Mid-Rank*			Lowest*			
	r	$\eta$ †	City	r	$\eta$ †	City	r	$\eta$ †	City	
Proprietors, Managers and Officials	+ .98	* .98	(Macon)	+ .90	.93 .93	Atlanta	+ .80	.80 .86	Rochester	
	+ .95	.97	Birmingham							
College Graduates	+ .95	.96 .97	Birmingham	+ .90	.94 .94	Atlanta	+ .79	.89 .82	Minneapolis	
	+ .95	.99 .99	Providence							+ .90
Professional Workers	+ .91	* .92	(Macon)	+ .79	.85 .91	Dallas	+ .48	.83 .90	Akron	
	+ .88	.92	Oakland							
Seeking Work	- .93 - .84	* .90 .91	(Macon)	- .77	.86 .86	New Orelans	- .67 - .67	* .92 .92	(Detroit) Louisville	
			Memphis	- .77	.91 .95	Oakland				
				- .77	.93 .88	Toledo				
Laborers	- .75	.83 .91	Dayton	- .66	.87 .79	Providence	- .50	.74 .65	Akron	
Foreign-Born White	- .64	* .77	(Berkeley)	- .61	.72 .74	Rochester†	- .15 - .32	* .44 .54	(Detroit) Akron	
	- .63	.70	Oakland	- .58	.84 .73	Providence†				
	- .63	.82 .82	St. Paul							
Negroes	- .78	* .84	(Macon)	- .43	.55 .70	Dallas†	- .18	.41 .58	Kansas City	
	- .75	.92	Birmingham	- .35	.40 .50	Indianapolis†				
	- .75	.81 .86	Memphis							
Fertility Ratio	- .71	.93 .84	Providence	- .51	.72 .88	Dallas	- .04	.39 .43	Seattle	
				- .51	.59 .66	Rochester				
Males	- .75	.95 .86	Providence	- .50	.63 .59	Cincinnati	- .07	.38 .52	Birmingham	
				- .50	.58 .83	Columbus				
				- .50	.68 .91	Seattle				
Under 15	- .77	* .90	(Macon)	- .41	.61 .60	Memphis	+ .24	.71 .49	Seattle	
	- .72	.77	Birmingham							
60 years and over	+ .89	* .84	(Macon)	+ .23	.43 .51	Indianapolis	- .46	.77 .70	Seattle	
	+ .73	.81	Birmingham							

\* Where the two smaller cities (Berkeley and Macon) or the one larger city (Detroit) showed the highest, middle, or lowest coefficient of correlation the city from the original sample of 20 cities that ranked closest in value was also included in the table;  $\eta$ 's were not computed for Berkeley, Macon and Detroit.

† The first figure for each city in this column represents  $\eta_{xy}$ , the second figure  $\eta_{yx}$ .

‡ Since an even number of cities is included in the series of correlations for Negroes and foreign-born white the two cities of mid-rank are listed in the table.

The corresponding correlation ratios for Detroit are  $r_{xy} = .44$  and  $r_{yx} = .21$ . There are four between  $-.32$  and  $-.58$  and one comparatively low ( $-.15$  for Detroit). There is a noticeable tendency for the spatial patterns of Negroes for cities located in the "deep south" to show the most pronounced differentiation in terms of economic status. Macon ranks first with  $-.78$  and Birmingham and Memphis are tied for second place with  $-.75$ . Atlanta is fourth with  $-.52$ , New Orleans fifth with  $-.47$ , and Dallas sixth with  $-.43$ . The cities of Indianapolis, Columbus, Louisville, and Cincinnati have coefficients of correlation varying within the relatively narrow range of  $-.32$  to  $-.35$ . Detroit has a coefficient of  $-.28$  and Kansas City  $-.18$ . It will be observed, however, from Table III that the  $r$ 's are consistently higher than the  $r$ 's. For example, the  $r$  of  $-.18$  for Kansas City is a marked understatement since  $r_{xy} = .41$  and  $r_{yx} = .58$ .

For several decades demographers have pointed out that for most occidental countries there is an inverse differential birth rate with respect to economic status. This phenomenon is clearly reflected in the spatial patterning of the fertility ratio (children 0-4 years of age to females 15-44 years of age) and mean rent for all of the 23 cities. The lowest coefficient of correlation is  $-.04$  (Seattle) and the highest is  $-.71$  (Providence). The corresponding  $r$ 's are .39 ( $r_{xy}$ ) and .43 ( $r_{yx}$ ) for Seattle and .93 ( $r_{xy}$ ) and .84 ( $r_{yx}$ ) for Providence. Eleven of the cities have coefficients from  $-.51$  to  $-.58$ ; four cities,  $-.45$  to  $-.49$ ; four cities,  $-.35$  to  $-.39$ ; and the remaining two,  $-.29$  and  $-.20$ .

An examination of the coefficients of correlation for the spatial distribution of mean rent and the proportion of the population belonging to the male sex shows a consistently inverse relationship for all 23 cities. In a few instances, however, the relationship is relatively slight. It is significant to note that the cities with the lowest coefficients of correlation are located in the South. Birmingham is lowest with  $-.07$ , Atlanta second lowest with  $-.14$ , Macon third low-

est with  $-.23$ , Memphis fourth lowest with  $-.33$ , and New Orleans fifth lowest with  $-.35$ . The remaining 18 cities show coefficients ranging from  $-.44$  to  $-.75$ . Table III indicates that the  $r$ 's are considerably higher than the  $r$ 's for this series. Birmingham which has the lowest  $r$  ( $-.07$ ) shows the following  $r$ 's:  $r_{xy} = .38$  and  $r_{yx} = .52$ ; the highest  $r$  ( $-.75$ ) which is for Providence is represented by the corresponding  $r$ 's:  $r_{xy} = .95$  and  $r_{yx} = .86$ .

The least consistent of spatial patterns of the indices presented in this analysis are those relating to age. This is particularly true of the group 60 years of age and over. All but one of the coefficients of correlation between mean rent and the population under 15 years of age is negative. The one exception is Seattle with a relatively low positive coefficient,  $r = +.24$ ; the corresponding correlation ratios are much higher:  $r_{xy} = .71$  and  $r_{yx} = .49$ . The remaining 22 cities show a comparatively wide range from  $-.13$  (Oakland) and  $-.14$  (Berkeley) to  $-.72$  (Birmingham) and  $-.77$  (Macon). Relatively high coefficients of correlation also are indicated for the following cities: Dallas ( $-.64$ ), Atlanta ( $-.61$ ), Portland ( $-.54$ ), Cincinnati ( $-.53$ ), Indianapolis ( $-.51$ ), and Providence ( $-.51$ ). It will be observed from Table III that the  $r$ 's for Birmingham ( $r = -.72$ ) are  $r_{xy} = .90$  and  $r_{yx} = .77$ .

The coefficients of correlation between mean rent and the percentage of the population 60 years of age and over vary from  $+.89$  (Macon) to  $-.46$  (Seattle). Figure 2 shows however that the relationship between these two variables for the city of Seattle is markedly curvilinear, and accordingly the two  $r$ 's are appreciably higher than the Pearsonian " $r$ " of  $-.46$ :  $r_{xy}$  is .77 and  $r_{yx}$  is .70. Most of the cities show a positive relationship between mean rent and percentage of the population 60 years of age and over: 6 cities (Macon, Birmingham, Providence, Atlanta, Cincinnati, and Columbus) have positive coefficients of  $+.32$  or higher and 2 cities (Seattle and Portland) have negative coefficients of  $-.32$  or higher. Of the remaining 16 cities, 13 indicate posi-

# EXAMPLES OF THREE TYPES OF SPATIAL PATTERNS POPULATION 60 YEARS OF AGE AND OVER IN RELATION TO MEAN RENT

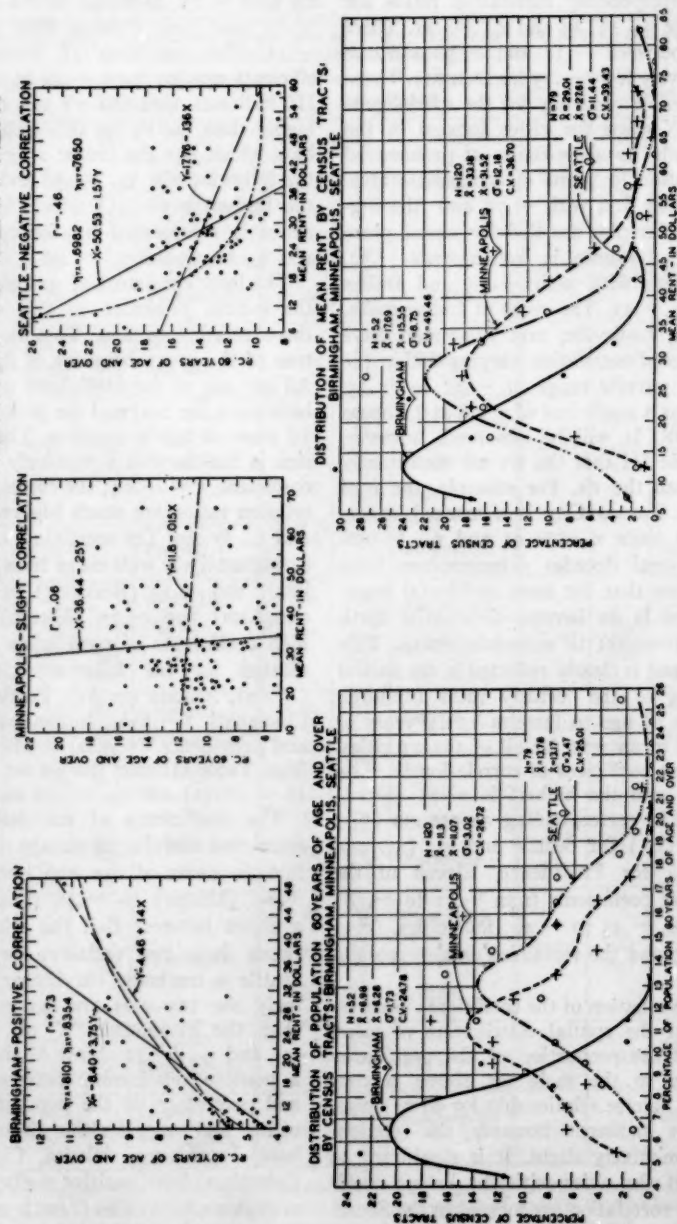


FIG. 2

tive coefficients ranging from  $+.09$  to  $+.28$  and 3 negative coefficients from  $-.06$  to  $-.09$ .

The explanation for the wide differences in the spatial patterning of the population 60 years of age and over seems to be due (1) to variations in the proportion of older people in the population and (2) to local conditions influencing the ecological distribution of this group. The two cities—Seattle and Portland—with the most pronounced negative correlation between mean rent and percentage of the population 60 years of age and over, rank highest among the 20 cities of comparable size in the proportion of those 60 years of age and above. In 1940, 14.4 per cent of Portland's population and 13.7 per cent of Seattle's were 60 years of age and over.<sup>6</sup> On the other hand, cities with high positive correlations generally rank low in the proportion of older people in their respective populations. This tendency is further revealed by the fact that there is a measurably significant negative relationship ( $-.57$ ) between the percentage of the population 60 years of age and over in the respective cities, and the series of coefficients of correlation which were computed for mean rent and the population 60 years of age and over. Also, it should be noted that Seattle and Portland have large Hobohemias characterized by very low rents but very high proportions of old people, most of whom are members of the male sex. Figure 2 portrays the essential features of three types of spatial patterns, along with certain supplementary data of the population 60 years of age and over in relation to mean rent. Although this presentation is largely self-explanatory it should be pointed out that in the positive correlation type of distribution (e.g., Birmingham) older people tend to live in the high-rent areas, whereas in the negative correlation type (e.g., Seattle) the reverse is true. In the low correlation type (e.g., Minneapolis) it will be observed that both tendencies described above are

operative to such a degree that they cancel out each other, thus resulting in a very low correlation.

#### CORRELATION OF MEDIAN GRADE COMPLETED WITH 11 OTHER INDICES

It was pointed out in the foregoing section that the relationship between mean rental and educational status is very high. This fact is indicated in much greater detail by the data in Table IV where the index, median school grade completed, is correlated with eleven other variables. In comparing the two sets of coefficients of correlations in Tables II and IV, the coefficients for median school year completed generally rank higher than those for mean rental. Of the 206 comparable pairs of correlation coefficients, median school grade completed is higher in 131 instances, lower in 68 instances, and the same as mean rent in 7. In general, the same relationship also holds for the more than 100 pairs of curvilinear coefficients of correlation in Tables III and V.<sup>7</sup> Laborers, Negroes, and foreign-born when correlated with median school year completed indicate almost uniformly higher coefficients than when correlated with mean rent. Of the 23 cities, Dayton is the only one that has a higher coefficient of correlation for mean rent and laborers ( $-.75$  for mean rent as compared to  $-.72$  for median grade completed) and Rochester shows identical coefficients ( $-.51$ ) for both indices. For the 12 cities where the two primary indices are correlated with the percentage of population classified as Negro, the coefficients for median school year completed are uniformly higher than those for mean rent. Similarly, only one of the 10 cities for which corresponding coefficients were computed for the foreign born white shows a higher figure for mean rent than median school year completed (St. Paul:  $-.63$  for mean rent and  $-.60$  for median school grade completed).

On the other hand, mean rent is more

<sup>6</sup>Berkeley has a slightly higher percentage (13.9 per cent) of the group 60 years of age and older than does Seattle, but it is a typical university city with a much smaller total population.

<sup>7</sup>It is obvious that a large proportion of these differences are not statistically significant according to conventional measures, nevertheless there is a remarkably consistent pattern for the two series of correlation coefficients under comparison.

TABLE IV. INTERCORRELATIONS BETWEEN MEDIAN GRADE COMPLETED AND CERTAIN VARIABLES BY CENSUS TRACTS FOR A SAMPLE OF 20 CITIES OF COMPARABLE SIZE WITH SUPPLEMENTARY DATA FOR TWO SMALLER CITIES AND ONE LARGER CITY: 1940

Median Grade Completed for Population 25 Years and Over Correlated with Percentage											
City	Foreign Born**	Prof. Workers	Prop. and Managers	Laborers	Seeking Work	60 and Over	Under 15	Males	Negroes**	Mean Rent	Children 0-4 to Fe- males 15-44
<i>Sample Cities</i>											
1. Akron.....	-.42†	+.55†	+.89	-.60	-.82	+.23	-.48†	-.75	—	+.86	-.63
2. Atlanta.....	—	+.72	+.83†	-.83	-.85	+.58	-.71	+.01†	-.66	+.87†	-.53†
3. Birmingham.....	—	+.75	+.93*	-.82	-.82	+.72	-.63	-.02	-.84*	+.93*	-.49
4. Cincinnati.....	—	+.71	+.70†	-.63	-.71	+.42	-.57	-.50	-.35†	+.90	-.57
5. Columbus.....	—	+.80	+.82	-.75	-.73	+.46	-.60	-.54†	-.39	+.87†	-.65
6. Dallas.....	—	+.72	+.73	-.74†	-.86	+.43	-.74	-.54†	-.55†	+.84	-.76*
7. Dayton.....	—	+.82	+.83†	-.72	-.68†	+.08	-.36	-.56	—	+.87†	-.52
8. Indianapolis.....	—	+.72	+.86	-.70	-.73	+.22	-.53	-.55	-.36	+.91	-.59
9. Kansas City.....	—	+.79†	+.78	-.74†	-.89	+.06	-.33	-.53	-.44†	+.82	-.47
10. Louisville.....	—	+.90*	+.89	-.72	-.72	+.47	-.47	-.62	-.37	+.86	-.44
11. Memphis.....	—	+.76	+.89	-.81	-.90*	+.34†	-.47	-.38	-.84*	+.93*	-.43
12. Minneapolis.....	-.62†	+.75	+.72	-.71	-.68†	+.13	-.45	-.63	—	+.84	-.64
13. New Orleans.....	—	+.75	+.85	-.75	-.83	+.59	-.53	-.32	-.58	+.90	-.44
14. Oakland.....	-.70	+.85	+.79	-.79	-.81	+.09	-.31	-.54†	—	+.84	-.53†
15. Portland.....	-.54	+.78	+.82	-.85*	-.71	+.26	-.20	-.36	—	+.84	-.41
16. Providence.....	-.69†	+.84	+.86	-.73	-.84	+.79*	-.80*	-.77*	—	+.89	-.71
17. Rochester.....	-.73	+.78	+.75	-.51†	-.77	+.49	-.49	-.53	—	+.89	-.58
18. Seattle.....	-.74*	+.79†	+.74	-.85*	-.73	+.31†	+.01†	-.60	-.31†	+.81†	-.27†
19. St. Paul.....	-.60	+.86	+.89	-.74†	-.72	+.12	-.46	-.55	—	+.88	-.66
20. Toledo.....	—	+.86	+.93*	-.75	-.76†	+.08	-.37	-.65	—	+.93*	-.45
<i>Small Cities</i>											
21. Berkeley.....	-.81	+.95	+.79	-.89	-.73	+.43	-.48	-.79	—	+.76	-.69
22. Macon.....	—	+.82	+.94	-.75	-.90	+.85	-.76	-.23	-.83	+.98	-.52
<i>Large City</i>											
23. Detroit.....	-.37	+.83	+.79	-.65	-.75	+.26	-.31	-.47	-.36	+.84	-.34

\*\* Only cities with 10 per cent or more foreign-born white or 10 per cent or more Negro. Detroit included with 9.2 per cent Negro. \* Highest, † mid-rank and ‡ lowest coefficients of correlation (20 sample cities).

TABLE V. HIGHEST, MID-RANK, AND LOWEST RECTILINEAR COEFFICIENTS OF CORRELATION ( $r$ 's) AND CORRESPONDING CORRELATION RATIOS ( $\eta$ 's) BETWEEN MEDIAN GRADE COMPLETED AND ELEVEN OTHER INDICES FOR TWENTY-THREE AMERICAN CITIES: 1940

Index	Highest*			Mid-Rank*			Lowest*		
	$r$	$\eta$ †	City	$r$	$\eta$ †	City	$r$	$\eta$ †	City
Mean Rent	+.98	*	(Macon)	+.87	.95	Atlanta	+.76	*	(Berkeley)
	+.93	.98	Birmingham	+.87	.97	Columbus	+.81	.93	Seattle
	+.93	.97	Memphis	+.87	.91	Dayton		.92	
	+.93	.95	Toledo		.94				
	+.93	.98			.90				
Proprietors, Managers and Officials	+.94	*	(Macon)	+.83	.91	Atlanta	+.70	.86	Cincinnati
	+.93	.98	Birmingham	+.83	.89	Dayton		.86	
	+.93	.96	Toledo		.92				
Professional Workers	+.95	*	(Berkeley)	+.79	.87	Kansas City	+.55	.86	Akron
	+.90	.92	Louisville	+.79	.88	Seattle		.86	
		.95			.90				
Seeking Work	-.90	*	(Macon)	-.76	.83	Toledo	-.68	.76	Dayton
	-.90	.93	Memphis		.89		-.68	.76	Minneapolis
		.95						.81	
Laborers	-.89	*	(Berkeley)	-.74	.86	Dallas		.62	Rochester
	-.85	.89	Portland	-.74	.94	Kansas City	-.51	.68	
	-.85	.93	Seattle	-.74	.85	St. Paul			
		.89		-.74	.93				
Foreign-Born White	-.81	*	(Berkeley)	-.69	.80	Providence†	-.37	*	(Detroit)
	-.74	.78	Seattle	-.62	.78	Minneapolis‡	-.42	.73	Akron
		.82			.75			.60	
Negroes	-.84	.94	Birmingham	-.55	.80	Dallas†	-.35	.66	Cincinnati
	-.84	.90	Memphis	-.44	.63	Kansas City‡		.44	
		.90			.50				
Fertility Ratio	-.76	.89	Dallas	-.53	.64	Atlanta	-.27	.46	Seattle
		.78		-.53	.62	Oakland		.51	
Males	-.79	*	(Berkeley)	-.54	.57	Columbus	+.01	.54	Atlanta
	-.77	.84	Providence	-.54	.69	Dallas		.43	
		.88		-.54	.61	Oakland			
					.69				
Under 15	-.80	.86	Providence	-.48	.59	Akron	+.01	.49	Seattle
		.90		-.48	.63	(Berkeley)		.59	
60 years and over	+.85	*	(Macon)	+.34	.55	Memphis	-.31	.60	Seattle
	+.79	.85	Providence		.58			.60	

\* Where the two smaller cities (Berkeley and Macon) or the one larger city (Detroit) showed the highest, middle, or lowest coefficient of correlation the city from the original sample of 20 cities that ranked closest in value was also included in the table;  $\eta$ 's were not computed for Berkeley, Macon and Detroit.

† The first figure for each city in this column represents  $\eta_{xy}$ , the second figure  $\eta_{yz}$ .

‡ Since an even number of cities is included in the series of correlations for Negroes and foreign-born white the two cities of mid-rank are listed in the table.

\*\* Only cities with 10 per cent or more foreign-born white or 10 per cent or more Negro. Detroit included with 9.2 per cent Negro. \* Highest, † mid-rank and ‡ lowest coefficients of correlation (20 sample cities).

# SCHEMATIC PRESENTATION OF SCALE ANALYSIS CENSUS TRACT DATA 10 SOCIO-ECONOMIC VARIABLES, PROVIDENCE: 1940

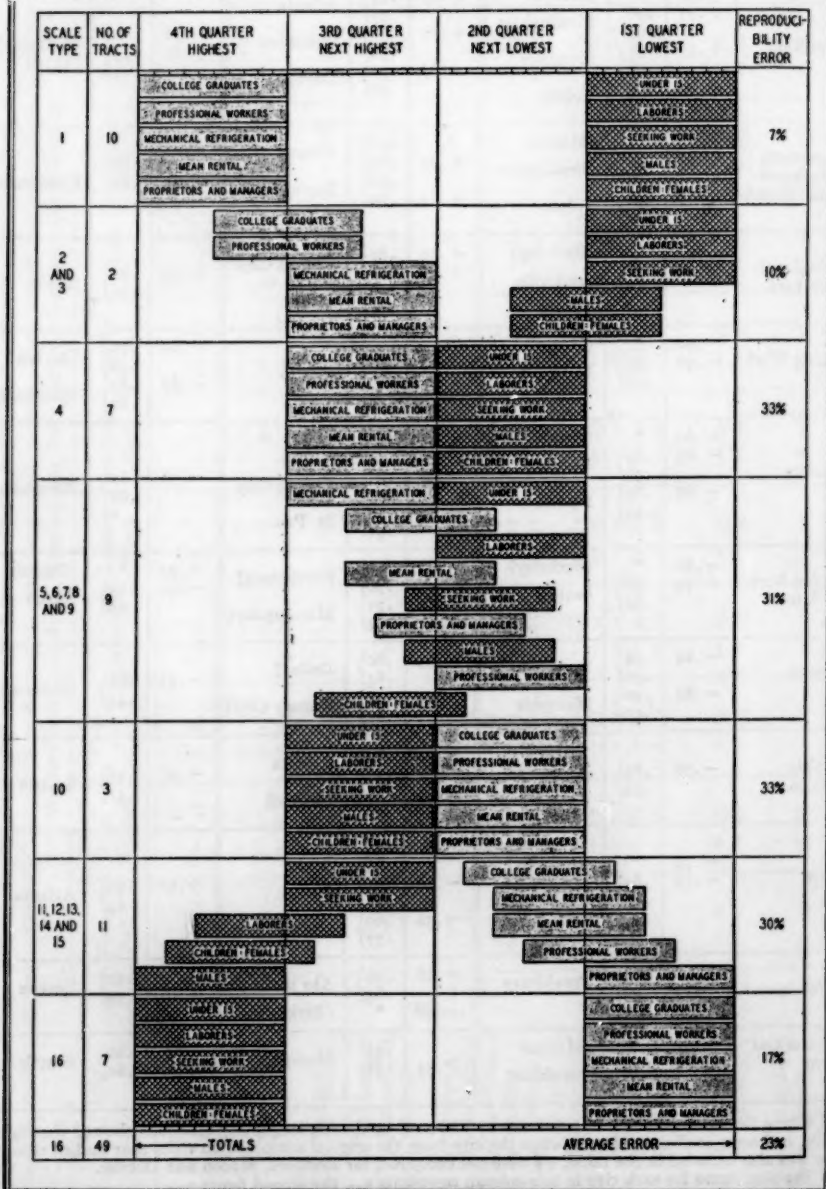


FIG. 3

highly correlated with proprietors, managers and officials than is median school year completed. Among the 23 cities, Louisville is the only exception to the rule (+.86 for mean rent and +.89 for median grade completed). In the case of professional workers the coefficients of correlation are higher in 12 cities for median grade completed and in 11 cities they are higher for mean rent. This is the most evenly divided series. Of the 5 remaining indices, median school year completed is noticeably more highly correlated with ratio of children under 5 to females 15 to 44, percentage males, and percentage under 15 than is mean rent. In the case of percentage 60 years of age and over and percentage seeking work, the coefficient for median grade completed are higher for 13 and 14 cities, respectively.

#### TYPOLOGICAL ANALYSIS OF ECOLOGICAL PATTERNS

*"Scale Analysis" Technique.* Figure 3 summarizes in schematic form certain ecological pattern-types derived from an application of the Cornell technique of scale analysis.<sup>8</sup> The purpose of this presentation is twofold: (1) to develop a series of ecological pattern-types including a stipulated level of error and (2) to demonstrate the cluster-forming and cluster-changing processes of ecological indices.

The various steps used in this analysis can be summarized as follows: (1) Quartile rankings for each of the 10 selected indices for the 49 census tracts in the city of Providence were computed. (2) Scale analysis was used to rank the 49 census tracts from high to low according to the relative rank of each tract, with reference to the 10 indices. The coefficient of reproducibility on the first trial with no combination of categories was 77 per cent.<sup>9</sup> (3) As a result of the ranking

procedure of scale analysis technique, 16 ecological types were established. For purposes of simplification as well as to facilitate the graphic presentation of the data, the 16 types were combined into 7 categories.

It will be observed from Figure 3, for example, that pattern type 1 is characterized by two distinct and contrasting clusters. The first cluster, all of which are found in the highest quarter ( $Q_3$  and higher values), consists of the following five indices: college graduates, professional workers, proprietors, managers and officials, mean rent, and mechanical refrigeration; the second cluster, which is located in the lowest quarter ( $Q_1$  and lower values), comprises laborers, unemployed, males, children under 15, and ratio of children under 5 to females 15 to 44. Ten census tracts fall into type 1. From a conventional evaluative point of view the census tracts included in type 1 are the "best" in the city. The error of reproducibility for this type is 7 per cent. This means that of the 100 quartile positions assigned in this group, 7 fell outside the fourth and first quarters respectively, the dominant scale pattern for type 1.

Pattern type 16 represents the antithesis of type 1, i.e., the clustering of the two sets of indices are exactly reversed. College graduates, professional, workers, proprietors, managers and officials, mechanical refrigeration, and mean rent form a cluster in the lowest quarter, and laborers, unemployed, children under 15, males, and fertility index are concentrated in the highest quarter.

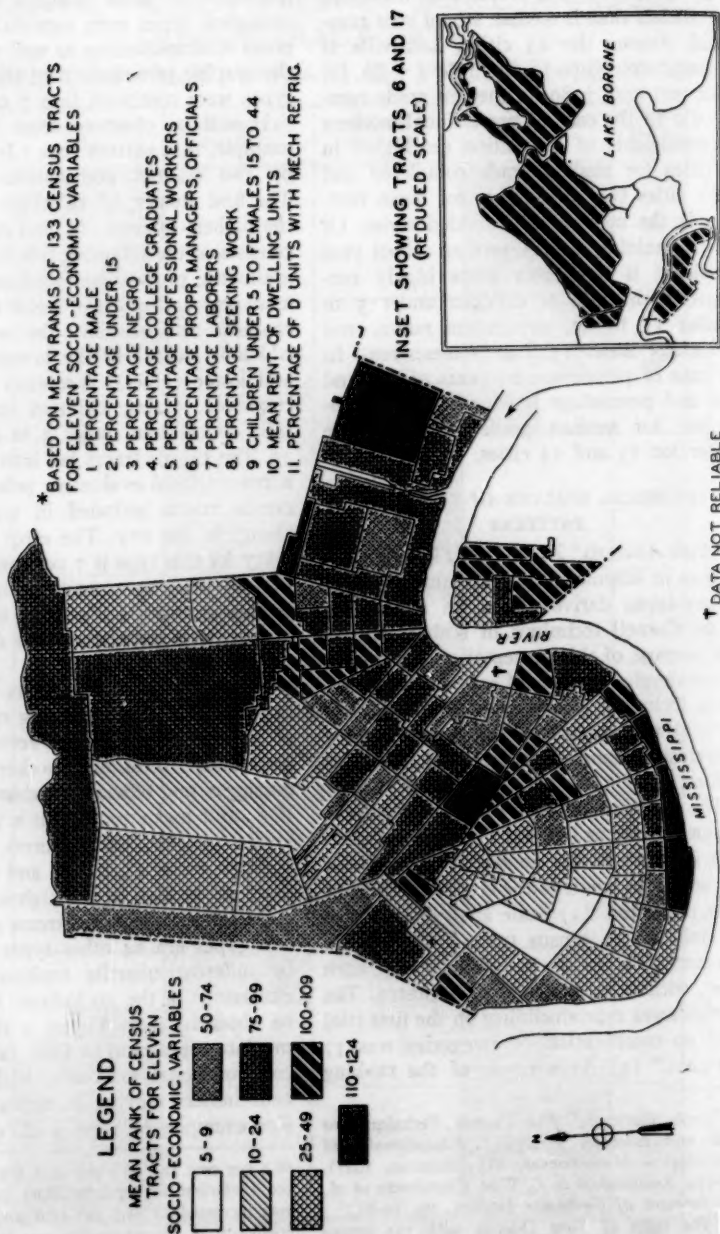
Between these two extreme ecological pattern types are 14 other types characterized by different quartile rankings as well as clusterings of the 10 indices. In fact, it will be observed from Figure 3 that the intermediate types tend to form fairly consistent configurational gradients, with the component indices moving in opposite directions. For example, in type 4 all of the indices

<sup>8</sup>Louis Guttman, "The Cornell Technique for Scale and Intensity Analysis," *Educational and Psychological Measurement*, VII (Summer, 1947), 247-279. Republished in C. West Churchman *et al.*, *Measurement of Consumer Interest*, pp. 60-84.

<sup>9</sup>The cities of New Orleans with 132 census tracts (data for one tract were not reliable) and Akron with 57 census tracts show corresponding coefficients of reproducibility on the first trial of

66.7 per cent and 68.7 per cent. On the second trial the coefficient of reproducibility for New Orleans was increased to 85.5 per cent and for Akron the coefficient of reproducibility was raised to 85.0 per cent. Normally, in applying scale analysis technique a minimum of 100 cases is recommended. See Louis Guttman, *op. cit.*

# ECOLOGICAL STRUCTURE\* NEW ORLEANS: 1940



in the fourth quarter in type 1 are in the third quarter and all the indices in the first quarter in type 1 will be found in the second quarter.

In combining certain of the scale-types of graphic presentation it was necessary to show several of the indices as occupying intermediate positions between quarters. This was done by simple weighting. In combining scale types 5, 6, 7, 8, and 9, for example, the indices (a) under 15 years of age, (b) laborers, and (c) professional workers were found consistently in the second quarter and (d) mechanical refrigeration was located each time in the third quarter. They are so represented on the chart. The remaining indices, however, for these five scale-types fell both in the second and third quarters. By way of illustration the fertility ratio was located in the third quarter 4 times and the second quarter only once. Accordingly, four-fifths of the bar representing this index in Figure 3 was placed in the third quarter and one-fifth in the second quarter. In the same manner mean rent was in the third quarter 3 times and in the second quarter twice. It will be observed from Figure 3 that three-fifths of the bar representing this index for scale-type 5-9 are in the third quarter and two-fifths in the second quarter.

*Ecological Pattern Types based on Simple Ranking of Indices.* As a further step in analyzing the ecological patterning of the American city composite rankings based on 11 indices were derived for the census tracts in New Orleans.<sup>10</sup> This technique of typing areas like scale analysis is based on a ranking procedure. However, it is much simpler and the results are a single composite score. The first step in the derivation of the scores was to rank each of the 132 tracts from 1 to 132 for the 11 different indices. The respective tract rankings were then totaled and divided by 11, thus giving a series of 132 mean scores. These scores are presented in graphic form in Figure 4.

<sup>10</sup> It will be recalled that 10 indices were used in the foregoing section. Because of the large Negro population in New Orleans, an eleventh index representing the percentage of the total population classified as Negro was included in this analysis.

The mean scores for the 132 census tracts vary from 5.6 (Tract 118) to 122.6 (Tract 16). Theoretically, of course, the lowest score is 1.0 and the highest, 132. Tract 118 has a rank of 1 for mean rent, mechanical refrigeration, and proprietors, managers and officials, 2 for college graduates and those seeking work (reversed ranking), 3 for professional workers and laborers (reversed ranking), and 4 for fertility (reversed ranking). This tract also ranked low for the remaining indices except the proportion of the population classified as Negro which shows a rank of 25 (reversed ranking).<sup>11</sup>

The census tracts with the highest scores are as follows: 16 (122.6); 9 (116.3); 69 (113.5); 87 (113.5); 104 (113.4); and 95 (113.1)<sup>12</sup>

In most instances the several indices for the tracts in this lowest category as well as in other categories are relatively consistent, although in some instances 1 or 2 indices may be out of line to such an extent as to distort the mean score.

The least consistent index is percentage of the population classified as male. In order to test the relative consistency of the 11 indices, each one was correlated with the mean score. The coefficients of correlation between the mean score and the 11 indices are as follows: (1) mean rent, +.93; (2) laborers, +.89; (3) college graduates, +.87; (4) professional workers, +.87; (5) those seeking work, +.86; (6) mechanical refrigeration, +.84; (7) proprietors, managers,

<sup>11</sup> It is possible that the Negro domestic employees in the well-to-do districts tend to raise the proportion of the Negro population that otherwise would not live in areas of this kind. The other two tracts with mean ranks of less than 10 rank 29.5 and 33 respectively (reversed ranking) in the proportion of Negroes. In this connection it is also significant that of the 10 census tracts ranking lowest in the proportion of Negroes, 8 are in the third category on Figure 4 (mean rank scores of 25-49); 1 tract is in the second category (10-24) and 1 in the third (50-74). These districts generally would be considered "upper middle class."

<sup>12</sup> For a more detailed description of the ecological characteristics of New Orleans, see: H. W. Gilmore, "The Old New Orleans and the New: A Case for Ecology," *American Sociological Review*, 9 (August, 1944), 385-394.

and officials,  $+.83$ ; (8) under 15 years of age,  $+.76$ ; (9) Negroes,  $+.68$ ; (10) fertility ratio,  $+.66$ ; and (11) males,  $+.47$ .

#### GENERALIZATIONS AND CONCLUSIONS

The foregoing data and analyses provide an empirical basis for a number of significant generalizations and conclusions concerning the ecological structure of the urban community. In order to provide a valid and reliable basis for a study of this kind a primary sample of twenty cities of comparable size was chosen and one larger and two smaller cities were selected for comparative purposes. Moreover, detailed data consisting of twelve different indices representing sex, age, race, nativity, income, education, occupation, employment status, and fertility were subjected to intensive statistical analysis.

It was shown that the ecological structure of the large American city manifests a regular, definitive, and pervasive pattern. This basic fact possesses a number of implications which can be expressed in the form of a series of specific generalizations or "laws":

1. The most highly intercorrelating variable in the ecological patterning of the large urban community is the educational status of the population as measured by median school grade completed.

2. The social structure of the urban community has an ecological base; that is, the many areas in the large city can be represented by a status-value ranking as determined by such factors as education, income, and occupation.<sup>18</sup>

3. Certain occupational groups tend to segregate in high income areas, others in low income areas. In the light of our present class-structure as well as differential rates of income, professional workers and proprietors, managers and officials, of course, tend to segregate in the highest rent areas.

The ecological distribution of proprietors, managers and officials is more closely related to mean rent than is the ecological distribution of professional workers. Laborers show a high and consistent inverse relationship with mean rent.

4. As would be expected, the unemployed evidence a marked tendency to concentrate in the low-income areas.

5. Educational status shows a consistently high positive correlation with mean rent (income), occupation, and employment status. For example, the indices median school year completed and mean rent show coefficients of correlation ranging from  $+.76$  to  $+.98$  for the 23 cities included in this analysis. Similarly, the coefficients of correlation between mean rent and percentage of the population 25 years and over classified as college graduates vary from  $+.71$  to  $+.95$ .

6. Negroes and the foreign-born white tend strongly to reside in low-income areas. In this connection it is significant to note that in the two series of cities there is a higher negative correlation between mean rent and foreign-born white population than between mean rent and Negro population.

7. Fertility is inversely related to socio-economic status in the ecological structure of the city.

8. The spatial patterning of children under fifteen years of age is similar to that of the fertility ratio.

9. There is a negative relationship between the percentage of the population classified as male and socio-economic status. Most of the coefficients of correlation range between  $-.40$  and  $-.60$ , although a few are higher and a few are lower.

10. In most large cities older people (sixty years of age and over) show a tendency to live in the higher income areas. It has been shown that this tendency is greatest in those cities having relatively small proportions of their total populations in this older age-group. On the other hand, in cities with high percentages of old people, like Portland and Seattle, there is an inverse relationship between the population 60 years of age and above and mean rent.

<sup>18</sup> Cf. Paul Hatt, "The Relation of Ecological Location to Status Position and Housing of Ethnic Minorities," *American Sociological Review*, 10 (August, 1945), 481-485; Eshref Shevsky, *The Social Areas of Los Angeles*, esp. pp. 33-121.

11. The ecological structure of the large urban community can be represented by readily identifiable and orderly clusters of indices—clusters that conform to clear-cut and consistent pattern-types.

12. Ecological pattern-types in the large city follow a recognizable gradation with the "gold coast" at one end and the "slum" at the other.

In addition to the specific generalizations concerning the ecological structure of the large American city, there are a few methodological implications of this study which deserve special mention:

1. Heretofore it was generally assumed that mean (or median) rent is the most valid ecological index of socio-economic status of the population. The present study indicates that median school-year completed is more highly correlated with race, age, sex, fertility, occupation, employment, and other indices than is mean rent. Of 206 comparable pairs of correlation coefficients, median school grade completed is higher in 131 instances,

lower in 68 instances, and the same as mean rent in 7.

2. The application of the Cornell technique of scale analysis to ecological data seems to possess definite value as a research tool. An attempt was made in the present study to use the Cornell technique to establish ecological pattern types.

3. In differentiating ecological areas in large cities one or at most a few selected indices may be much more valid than a large number of indices. Some of the more satisfactory indices for this purpose are (a) median-grade completed, (b) mean rent, (c) laborers, (d) college graduates, (e) professional workers, and (f) those seeking work.

4. Relationships between ecological data show a marked tendency to conform to curvilinear patterns. Accordingly, under the circumstances, the Pearsonian technique of correlation is an inaccurate measure of association. This fact should be given fuller recognition in ecological studies.

# NOTES ON RESEARCH AND TEACHING



## UNESCO AND SOCIAL SCIENCE RESEARCH\*

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The role which an international body like UNESCO should play in the drama of social science research is not obvious. There are many possible roles it might assume, and there are partisans for each of them. In the long run, the matter will be decided by the pragmatic test of what UNESCO proves to be able to do most effectively. In the meantime, we must reduce lost motion as much as possible by analyzing the problem carefully and planning intelligently. This paper has been written in the hope that American sociologists and political scientists who, by and large, have little intimate knowledge of UNESCO, will be willing to give their best thought to the social science program and make constructive suggestions. There is always the danger that an international secretariat will become isolated from the most dynamic currents of research. We need the stimulus and guidance that active investigators everywhere can give.

As the program is actually working, UNESCO has three objectives that are related to social science research: (1) to knit together social science scholars of the world, both within disciplines and between disciplines, with the expectation that this will increase international understanding; (2) to raise the level of social science research throughout the world in the belief that greater knowledge in these fields will benefit mankind; and (3) to promote research in fields crucial to the establishment of a peaceful world order. UNESCO tries to reach the first two objectives by promoting the international organization of social scientists, by the publication of the *UNESCO Social Science Bulletin*, and by fostering comparative research in different countries.

The economists, the political scientists, and

the sociologists have already formed their respective international associations under the leadership, and with the support, of UNESCO. The American Sociological Society and the American Political Science Association are being asked at these meetings to approve their participation, respectively, in the International Sociological Association and the International Political Science Association. The extent to which UNESCO will feel able to continue its support of these organizations, and others like them, will depend on the extent to which they actually function in the service of the objectives stated. It will be impossible for them to do so unless they obtain full support from national scientific organizations. It is my own belief that the international associations will prove their value most conclusively if they foster research of significance to the establishment of a peaceful world order. Since it is to this third objective that the research programs sponsored by UNESCO itself are oriented, I shall devote the balance of my discussion to the scope of these activities and the problems involved.

The grouping of studies within the Social Science Department has shifted between 1949 and 1950, and threatens to shift again between 1950 and 1951. I shall therefore classify the projects undertaken and planned under three commonsense heads: (1) studies related to social tensions; (2) studies concerned with improving international political techniques and instrumentalities; (3) studies that attempt to evaluate different types of international contacts from the standpoint of their contribution to international goodwill. I shall deal both with research now in process and that definitely planned.

The oldest and largest undertaking of the Social Science Department is the Tensions Project. It was born in a curious manner. At the First Session of the UNESCO General Conference in 1946 the Social Sciences Commission, examining the draft programme of work submitted by the Secretariat, expressed the view that a number of the proposals made concerning the study of nationalism, technology, population, and public opinion, had something

\* Paper read at the annual meeting of the American Sociological Society held in New York, December 28-30, 1949.

in common which they instructed the officers of the Commission and the Secretariat to discover. This group met, with Dr. Charles Johnson acting as rapporteur, and proceeded to outline a project that was at that time called "Tensions Crucial to Peace." This synthesis was warmly endorsed by the Commission and was adopted with enthusiasm at the Conference in its Plenary Session.

Social tension is a term that illustrates in a fascinating way the change of meaning that occurs when words are carried over into new fields. The root idea is that of a physical tightening. This is appropriately applied in biology to the contraction of muscles. But a nuance is added here because a taut muscle implies readiness to act. At the human level it even suggests difficulty in restraining oneself from action. We are now far away from the original physical meaning, for a tensed wire is not ready to do anything except break, and is certainly not restraining itself from action toward other objects. The reason for the shift in meaning is that we have passed from an inert object to one having will. The former is tensed and remains so by external circumstance. The latter is also tensed by circumstance but normally releases this tension through action. A continued state of tension testifies to some blocking, either internal such as conscience, or external such as power.

When the term is transferred to the social field, an interesting combination of the original and the derived sense occurs. A social tension, in ordinary parlance, implies two things: first, a relation between persons or groups that is taut, that threatens to rupture; and, second, attitudes on the part of the persons or groups related that are hostile. That this constellation of meaning has become fixed in a single term is probably no accident. It derives from the nature of social relationships. A break of an established relation is usually a deprivation for one or both parties, and hence its threat arouses hostility. The two parts of a ruptured string do not fight one another, but a North and a South do wage a Civil War.

One further feature must be added to delineate a situation of social tension. This is that hostility, originally developed toward the party at the other pole of the taut relation, may be displaced on another object if its expression in the original direction is blocked. It is a familiar phenomenon to "take out" one's anger on someone else when it is either unwise for power reasons or unacceptable to our own conscience to express the hostility toward the object that

aroused it. We may say, then, that a social tension is a strained relationship between two persons or groups which generates attitudes of hostility that may either be expressed toward the opposite pole, or displaced on some convenient scapegoat. All of this is to be read into Dr. Louis Wirth's characterization, in a memorandum written for UNESCO, of social tension as "latent conflict." One may well enquire when it is that social tension ceases. According to my view, the taut relation is relaxed in two cases; through external changes that lessen the divergence of orientation between the poles, or through overt conflict between the polar parties. The discharge of hostility on other objects gives only temporary relief and does not fundamentally alter the state of tension.

This discussion of social tension has been couched in socio-psychological terms. It remains to introduce a specifically sociological consideration. When groups are in a state of tension with one another, what significance to the relationship have the social norms that give the groups their specific character? Obviously, one of the principal reasons for social tensions is divergence in such norms of groups that have had, or must have, some sort of working relationship. This was certainly the situation that gave rise to our own Civil War. It is at the bottom of the "cold war" between Russia and the West to-day. But there is the further point that hostility arising from divergence of norms between groups may be displaced outward so as to render a larger situation tense that would otherwise be amicable. This occurs when control is so tight that expression of hostility is rendered dangerous within that relation. Hitler is believed to have consciously used this principle. He blocked by vicious suppression the expression of hostilities within Germany in order to foment hostility outward toward other peoples. Note that the strained relation between nations thus produced did not, on the German side, stem from the incongruence of social norms between their country and other countries, but from the strict control of tensions within Germany. The very process of such control, however, did constitute a shift in Germany's own norms that definitely increased the already large divergence between them and those of other nations.

This long preliminary discussion of social tensions has seemed to me necessary in order to understand the program of research that UNESCO has undertaken in this field. The studies may be classified roughly under five heads: (1) those that deal broadly with the divergent ori-

entations of people that may give rise to tensions, (2) those that investigate national images and stereotypes which may accentuate tensions, (3) those that study the development of tensions internal to a nation which, if repressed, may give rise to tensions between nations, (4) those that are concerned with the dual process of internal tensions and their displacement outward in the form of external hostility, and (5) those that investigate broad problems of attitude formation and change. Only the principal studies under each head will be discussed. It should be mentioned that the resolutions of the several sessions of the UNESCO General Conference that constitute the directives under which we work are not stated in this form. The "Tensions" staff has, however, developed studies in each of these categories in following out the resolutions that have been laid down.

There are two projects, one of which is just beginning, that deal with the divergent orientations of people that may create international tensions. The first is what is known as the "Ways of Life" series, the responsibility for which was delegated in 1948 to the International Studies Conference. Monographs written to a common scheme have been produced for 18 countries,<sup>1</sup> and the plan is to publish them as a "bookshelf" in French and English—and perhaps Spanish as well. It is possible that a cross-analysis of these studies will be worth while, in which similarities and differences of countries with regard to family life, education, religion, and the like, could be shown. We are, incidentally, making an objective check on the validity of the statements regarding national character in some of these monographs by sampling college students with the "ways to live" check list of Professor Charles Morris of the University of Chicago.

The other project in this area is a study of the divergences between Roman Law and Common Law that give rise to international problems. This has been assigned to the Centre Français de Droit Comparé.

A series of studies in the field of national stereotypes, planned by my predecessors, Dr. Hadley Cantril and Dr. Otto Klineberg, is now coming to fruition. One emphasis has been upon the nature of such stereotypes among children and the processes by which they are acquired

and can be changed. Experts in five countries have been, or are, engaged on such research. These include Belgium (Benelux), Germany, Lebanon, Switzerland, and the United Kingdom. A particularly promising part of this program is a volume that is being prepared by The New Education Fellowship in Britain on *Prejudice Among Teachers*. Another large project has involved sampling adults in eight countries (Australia, France, Italy, Mexico, Netherlands, Norway, United Kingdom, United States of America) by polling methods to determine their stereotypes of other nationalities. The synthesis of these surveys is just being completed by Dr. Henry Durant of London, and will be published in the spring. A third project was to bring together for several days a group of scholars to discuss the significance for international understanding of national images like John Bull and Uncle Sam. The conference was held at Royumont, near Paris, last September. A monograph setting forth the essential points brought out has been prepared by M. Gilbert Gadoffre and Professor Mircea Eliade, and will also soon be published.

Studies of internal tensions that may become dangerous to international peace because blocked in their spontaneous expression revolve around two kinds of problems, those arising from technological change, and those stemming from population composition and movement. In the former field, we are trying to check the results obtained in the United States in the Western Electric studies by investigations in six European countries of the factory workers' "sense of belonging." Another line of interest concerns the determination of educational programs that are in keeping with the development both of technological skill and breadth of personality. A conference of experts on this question is being convened in March to decide what sorts of research would be most promising.

Population studies are taking a number of directions. UNESCO co-operated with the International Union for the Scientific Study of Population Problems in a conference at Geneva last August on the cultural assimilation of immigrants. The features from this meeting are being published in English as a supplement to the March issue of *Population Studies*, and in French as a supplement to the March issue of *Population*. It is planned to co-operate with the International Union during 1950 on further studies.

Another undertaking concerns the influence of ethnic groups within a nation on the inter-

<sup>1</sup> Australia, Austria, Canada, Egypt, France, Greece, Hungary, India, Italy, Lebanon, Mexico, New Zealand, Norway, Pakistan, Poland, South Africa, Switzerland, United Kingdom.

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national-mindedness of the nation as a whole. This will be the subject of a roundtable discussion at a joint meeting of the International Sociological Association and the International Political Science Association in Europe next September. Preliminary memoranda are being prepared on the role played by the three main ethnic groups in Switzerland, the two in Belgium, the Italians and the Germans in Brazil, and the Negroes and one other minority in the United States. These memoranda will form the basis of discussion and, after the meeting, they will be developed in such manner as the conference deems appropriate. Probably the monographs will be published together with an analysis and synthesis of them.

One of the landmarks of the Social Science Department's history is the guidance that will be given to a study of social tensions in India by Dr. Gardner Murphy. It is a landmark because it is the first time that a Member State of UNESCO has asked for our help in a social science project. The Indian universities are to furnish the research personnel, but Dr. Murphy, with the assistance of another American scholar—probably an anthropologist—will plan the project and train the investigators.

Four principal studies are concerned with internal tensions and their displacement outward. One of these is already completed—a volume of essays by eight eminent social scientists<sup>2</sup> on aggressive nationalism, edited by Dr. Hadley Cantrill. It will appear in English and French shortly. A more empirical investigation in this field is comprised of a set of eight community studies in four countries—Sweden, France, Australia, and India. For each country a town of medium size and a small rural community are being studied from both the sociological and the socio-psychological viewpoints. The object is to discover the principal tensions that exist among the local groups and also to discover their attitudes toward outsiders, including people of other nations. The research teams were trained together in Paris last spring. Carefully chosen samples of the population are being interviewed and tested.

A third study concerns the Origins of Fascism. This is being conducted by the Conseil International de la Philosophie et des Sciences

Humaines. A conference last month in Monte Carlo, attended by experts on fascism from all over the world, laid out the plan of work. Monographs were assigned to comprise two volumes—one on the philosophy of fascism and its history to the point of coming into power, and one on the methods and techniques utilized in seizing and holding power. It is the latter volume that will be particularly interesting to social scientists.

The final study of this group is one that has just begun. It is an investigation of the present orientation of German youth, with particular reference to the problems of their attitude toward authority. Most students of the German question believe that the future of that country's relations with the democratic world depend upon a fundamental reorientation of the German people at this point. If the traditionally supine attitudes of German youth toward authority continue in force, accumulated tensions will again be directed outward on other countries. The study is being supervised by an international committee headed by Dr. Einar Tegen, of Stockholm. The research is to be conducted by a research team of two young German social scientists and a technical adviser trained in survey research methods. The Dortmund Sozialforschungsstelle is providing space for the staff. Appropriate samples of German youth will be interviewed and the results analyzed on the basis of a carefully prepared set of open-ended questions.

The fifth group of Tensions studies—those investigating broad problems of attitude formation and change—are somewhat miscellaneous in character. The largest undertaking is a volume by Dr. Otto Klineberg entitled *Tensions Affecting International Understanding: A Survey of Research*, which will appear as a Social Science Research Council Bulletin, in English as well as in a French translation. This presents and analyzes the pertinent studies that have been made, and points out areas in which further research is needed. A second volume of a similar sort is being prepared by the Society for the Psychological Study of Social Issues under the title *Measurement of Prejudice*. A paper entitled "International Research on National Images in the Mass Media of Communication" by Donald McGranahan, prepared originally for UNESCO, is being included as an appendix to this volume.

Two other projects that are in the planning stage concern the development of a barometer of public tension by Mr. James R. White

<sup>1</sup>Gordon Allport (USA), Gilberto Freyre (Brazil), Georges Gurvitch (France), Max Horkheimer (USA), Arne Naess (Norway), John Rickman (U.K.), Harry Stack Sullivan (USA), Alexandre Szalai (Hungary).

(WAPOR) whose readings would be obtained by polling methods, and a study of the conditions under which increasing knowledge about other peoples is conducive to greater friendship for them.

A quite different sort of undertaking is one in co-operation with the Education Department of UNESCO. Professor Lucien Febvre and Professor Fernand Braudel of the Sorbonne are preparing a model textbook of French history designed to show the contributions of other cultures to the greatness of France. It is hoped that, if it is adopted in schools, studies can be made of the effect on international attitudes.

It is probably surprising for those unfamiliar with UNESCO to learn of the variety of studies—*Ways of Life*, *Community Studies*, *German Youth*, *National Images*, and *Stereotypes*, *Population* and *Minority Problems*, *Technology*, etc.—started under the *Tensions Project*. We are now beginning to gather the rich harvest sown by my predecessors. This is a great opportunity and at the same time a challenge. We are well aware of the danger of dispersed efforts and plan to devote much attention in 1951 to synthesizing the results of various investigations which, by that time, will have been completed.

The scope of the studies so far undertaken by the *Tensions Project* came in for some criticism at a recent meeting of social scientists in another country. It was pointed out that although we were studying the divergences of national groups taken singly, we were doing little to study their actual frictions collectively. Stereotypes seemed to them largely symptomatic, a product for the most part of tensions, not a primary cause of them. I pointed out the difficulties for a body like UNESCO, the members of which are national states, of studying touchy political questions. Although this problem was readily appreciated, the group present thought that there should be more of an effort to study the strains giving rise to the "cold war" than had hitherto been made. No very concrete suggestions in this direction, however, were forthcoming.

Before passing to the other aspects of the research activities of the Social Science Department, it may be worth while to underline that, as Dr. Otto Klineberg has said, UNESCO is a midwife of research, rarely a mother. Almost all the studies already discussed have been "put out" to individuals or research institutes. The instrument by which this is done is called a fee contract. The staff in Paris outlines the job, then seeks the proper agency to do it, and often

participates in the detailed planning. During the course of the research UNESCO may advise, and often has to goad, but the job itself is delegated. When the research design calls for comparable studies in several countries, there is often an analyzing and integrating function to be performed at the end. This may either be done by a member of the Social Science staff or may be given into the hands of an expert consultant who is engaged for a limited time. The completed study may be published by UNESCO or, if it is one that has wide appeal, by a commercial firm. If possible, publication is in both French and English, and sometimes in another language when that is appropriate.

A new field of study of the UNESCO Social Science Department is that of race problems. Dr. Arthur Ramos, the well-known Brazilian anthropologist, who came as the Head of the Social Science Department last August, was particularly interested in developing this field. Unfortunately, he died less than three months after assuming his duties. A meeting of experts from all over the world which he had planned was carried out earlier this month. At this meeting a "Statement on 'Race'" was adopted that sets forth in clear and unmistakable fashion the present status of our knowledge in this field. It will be disseminated by UNESCO in many languages and may form the basis of a series of popular pamphlets. In addition, the expert committee suggested research projects aimed to fill in the lacunae in scientific knowledge concerning race and race problems. From these UNESCO will make up its research program in the next few years.

There is every probability that the *Tensions Project* will be undertaking in 1951 studies in the so-called under-developed areas of the world. Although the countries in these areas have not been those that start world wars, it is thought that for the long run the tensions incident to the spread outward of Western technological culture should be studied. It seems especially important to investigate ways and means of making the transition to an industrialized condition a creative one rather than one full of opposition and frustration.

Besides the *Tensions project*, the only other research area thus far well developed in the Social Science Department is that concerned with political instrumentalities of importance to world peace and security. Effort has been put forth in two directions. Now completed and soon to appear is a comprehensive volume entitled *Survey of Political Science*, which com-

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prises 50 essays and reports by scholars from more than twenty countries. The direction of the project has been successively in the hands of Dr. William Ebenstein and Dr. Massimo Salvadori. This should be a real landmark in the development of political science.

The subject of the other program is International Collaboration. Under the able direction of Dr. Walter Sharp studies have been undertaken on the technique of international conference. The number of such conferences is growing every year, and it becomes an important socio-psychological task to make their work more effective. Three pilot studies by research teams have been made in 1949—at the Human Rights Commission meeting at Lake Success, the World Health Assembly at Rome, and the meetings of committees of the Economic Commission for Europe at Geneva. The aim now is to draw on these exploratory observations to set up a definite agenda of research that needs to be done, and to foster its execution. A related research concerns the mechanism of Member Government participation in international organizations. Research in this direction is being sponsored jointly with the International Institute of Administrative Sciences in Brussels. The elaborate United Nations system calls for effective machinery within Member States to formulate and co-ordinate constructive policies for consideration by the component parts of the system; and, conversely, for the translation of recommendations by international bodies into appropriate measures for joint and separate action by the governments concerned. The basic research will be done by independent investigators with the agreement of the national governments.

Another major project in 1950 will be a study of the dynamics of political integration with a view to strengthening the United Nations. Particular attention will be devoted to the conditions which have favoured federalistic systems, the influences that subsequently have given rise to internal tension and even civil wars, and the forces which generate popular loyalties to wider forms of political association and help to consolidate the authority of super-organizations. Both historical and sociological research is envisaged.

There are two further studies planned for 1951, provided the co-operation of the United Nations and its Specialized Agencies is forthcoming. One is the functioning of international secretariats. Anyone who has worked in such a secretariat is fully aware of the difficulties and

problems involved in obtaining efficiency and maintaining morale. This is obviously a promising field for social science research. The other project is a comparative study of the operational evolution of selected Specialized Agencies. Such bodies as the WHO, FAO, and UNESCO have been in existence long enough so that a stock-taking of how their various organs (i.e., General Conferences, Executive Boards, Secretariats) are functioning is in order.

A third major field of UNESCO social science activity has been projected for 1951. This comprises the study of international contacts in the hope of determining what types of contacts are most effective in developing goodwill among nations. In a sense, this sort of research would be the converse of the Tensions Project. We would be discovering the positive factors in relations among peoples as well as the negative factors.

Among the sorts of contacts that could be studied are the exchange of persons, travel, membership in international organizations, communication through the mass media, and programmes of education dealing with other peoples. It is of the greatest importance to discover which of these bridges between peoples are fostering international understanding, and under what conditions. Large sums of money are being spent by all kinds of organizations, including UNESCO, in the hope that goodwill is being developed, but little is actually known with respect to the results of these programmes. The initial study will probably be confined to mass communications and will be conducted by interviewing appropriate samples, including leaders, of the populations of one or more countries (perhaps France). The information thus obtained can be widely disseminated, so that organizations working in the fields of international understanding can modify their programmes accordingly. Obviously, UNESCO will be one of the first to benefit by such knowledge.

Our survey of social science research in UNESCO reveals an ambitious programme. It is a programme that we hope will be freely criticized. One trend is, however, significant. Two at least of the newer projects show that UNESCO is becoming self-critical. This can only be regarded as hopeful. If international bodies are to play a principal role in bringing to pass the better world we all desire, they must function effectively. It is encouraging that the social sciences are being recognized as indispensable tools to the accomplishment of this task.

## ✓CULTURAL CONTRADICTIONS AND SEX ROLES: A REPEAT STUDY

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This article reports an approximate replication of a study by Komarovsky in 1942-43 on incompatible sex roles in the social environment of the college girl.<sup>1</sup> The article describes Komarovsky's investigation and the repeat study and then compares them in terms of (a) their quantitative findings and (b) their interpretations of the findings.

## KOMAROVSKY'S STUDY

Komarovsky concluded from her data that college women are exposed to two contradictory roles. These are characterized by her as the "feminine" and the "modern" roles. In describing the former, she states that, "While there are a number of permissive variants of the feminine role for women of college age ('the good sport,' 'the glamour girl,' 'the young lady,' 'the domestic home girl,' etc.), they have a common core of attributes defining the proper attitudes to men, family, work, love, etc., and a set of personality traits often described with reference to the male sex role as 'not as dominant, or aggressive as men,' or 'more emotional, sympathetic.'"<sup>2</sup> The modern role, on the other hand, "partly obliterates the differentiation in sex. It demands of the woman much the same virtues, patterns of behavior, and attitudes that it does of the men of a corresponding age."<sup>3</sup> During the college years the conflict between the feminine and modern roles "apparently centers about academic work, social life, vocational plans, excellence in specific fields of endeavor, and a number of personality traits."<sup>4</sup>

Komarovsky studied the nature and incidence of some components of these roles in 153 women seniors. (The socio-economic characteristics of the group are not reported.) Half the women were members of an undergraduate family course who wrote autobiographical papers on the topic. The other were all the students of a class in social psychology at the same eastern institution. Each of these women was interviewed for approximately an hour. The auto-

biographical and interview documents ranged from five to thirty typewritten pages. The general conclusion derived from the materials has already been presented; the more specific findings are discussed below following the description of the repeat study.

## THE REPEAT STUDY

A replication of Komarovsky's investigation seemed worthwhile for two reasons: (1) because the original sample consisted of seniors in a single institution who were taking a course in the family or social psychology, there was some question as to whether the findings were more generally applicable, and (2) since the subjects of Komarovsky's research did not participate anonymously, what they wrote or said conceivably might have been influenced by their conception of what would present them in the most favorable light to the investigator or the interviewer.

The repeat study<sup>5</sup> was carried out in 1949 in a western coeducational university where the ratio of men to women is about 3 to 1. A ten per cent random sample of unmarried, undergraduate female students was drawn from the campus directory. The 163 women so selected were asked to fill out a brief anonymous questionnaire and were given a short interview. The questionnaires were distributed—and the interviews conducted—by 54 members (33 men, 21 women) of a family class as part of the course work. Each person was assigned three subjects in such a way as to preclude his obtaining subjects known to him. The large majority of the subjects lived on or close to the campus and there was little difficulty in contacting them. Most of them were seen at their place of residence.

The questionnaire was two sides of a page in length. It was kept to a minimum size to encourage cooperation. It contained a number of questions about background characteristics as well as those concerned with the subjects' roles. The anonymity of the questionnaire was emphasized by the fact that subjects were told that on completing it, they were to seal it in an envelope to be returned to the writer.

The interviews were not meant to be used as a source of data because the interviewers were untrained.<sup>6</sup> However, since reports of the inter-

<sup>1</sup> Mirra Komarovsky, "Cultural Contradictions and Sex Roles," *American Journal of Sociology*, 52 (November 1946), 184-189.

<sup>2</sup> *Ibid.*, 184-185.

<sup>3</sup> *Ibid.*, 185.

<sup>4</sup> *Ibid.*, 185.

<sup>5</sup> I am greatly indebted to Patricia Hoagland and Rosemary Riley for their assistance in coding and tabulating the data.

<sup>6</sup> The assignment was intended to give the students some first-hand acquaintance with interviewing

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views provided some suggestive ideas for interpreting the questionnaire data a few words about the interview are in order.

The student interviewers were given a few general questions to put to the subjects and were requested to try to obtain a verbatim record of the answers. The questions were: (1) What do you consider appropriate behavior in your social relations with men? (2) What is your conception of the relative importance of academic and social activities? (3) What is your

or intending to major—in one of the social sciences, the remainder being distributed in the humanities (29 per cent), education (20 per cent), physical sciences (12 per cent), and in other fields (6 per cent). All but a negligible percentage were between 18 and 21 years of age, the majority being 19 or 20. Their parents were predominantly native born (93 per cent), Protestant (70 per cent), and of college level (both parents with one or more years of college, 70 per cent). Their fathers were largely in the

TABLE 1. PERCENTAGE OF 163 WOMEN GIVING INDICATED RESPONSES TO QUESTIONS ON PRETENDED INFERIORITY TO MEN

Question	Frequency					Total
	Very Often or Often	Several Times	Once or Twice	Never	No Answer	
1. When on dates, how often have you pretended to be inferior in artistic knowledge or taste (in music, art, literature, etc.)? . . . . .	8.1	15.6	23.2	51.9	1.2	100.0
2. How often have you pretended to be intellectually inferior to the man? . .	14.3	16.9	26.3	41.9	0.6	100.0
3. How often have you "played dumb" on dates because you thought the man preferred you that way? . . . . .	7.5	11.2	22.6	58.7	—	100.0
4. How often have you pretended to be athletically inferior when participating in some sport with a man? . . . .	6.9	8.1	29.4	55.6	—	100.0

attitude toward marriage and a career? Each question was followed by an inquiry as to what was regarded as the source of the subject's ideas, conceptions or attitudes.

No precise check could be made of the representativeness of the sample of 163 women. Only one refused to cooperate and substitutions had to be made for a few who for various reasons could not be reached. There was a 4 per cent overrepresentation of lower-division students and a corresponding underrepresentation of upper-division women, but since school year was found to have no relation to the dependent factors of the study, this aspect of the sampling did not affect the findings.

About a third of the subjects were majoring—

and to provide them with an opportunity to hear the question of role conflict discussed in terms of the experience of members of their own campus community.

professions, in managerial and executive positions, or had their own business.

#### FINDINGS OF THE TWO STUDIES

Komarovsky does not report either the specific directions given the subjects who wrote accounts of their conflicts in roles or the questions asked those who were interviewed. In trying to duplicate her study with questionnaire data the writer attempted to deduce from the article the particular topics to which the subjects addressed themselves and to formulate some questions bearing on these topics.

The first set of items used for this purpose in the repeat study focused on the frequency with which women pretended inferiority to men. Such pretense involves a clash of the modern and feminine roles described by Komarovsky. In the modern role the college woman is defined as the equal of the male and is expected to strive for scholastic honors and for leadership in many

student activities. But insofar as in dating and other paired relationships with men the college woman is required to adopt the inferiority and subordination of the more traditional feminine role, she is exposed to contradictory expectations. The responses to the questions, reproduced in Table 1, show that many college women, although conceiving of themselves as the equals of their male companions, feel called upon to pretend inferiority to them.

The percentages in Table 1 can be compared with one of the quantitative findings of Komarovsky's research. Forty per cent of her subjects indicated that they "have occasionally 'played dumb' on dates, that is, concealed some academic honor, pretended ignorance of some subject, or allowed the man the last word in an intellectual discussion."

The question in the repeat study touching this area most directly is that on frequency of pretended intellectual inferiority (Item 2, Table 1). Combining the percentages of women who checked "Several Times" or "Once or Twice" we get 46.2 per cent, a figure which is strikingly close to the 40 per cent of Komarovsky's sample. The latter percentage also corresponds closely to the equivalent percentages for the other three items in Table 1. It is interesting that about half the women in the repeat study pretended inferiority, even in the realm of artistic knowledge or taste in which presumably men adopt a permissive attitude to women's equality if not superiority.

Additional evidence in the repeat study of the pressure experienced by women students to assume a subordinate role to the male, although regarding themselves as equal or superior to him, is provided by the replies of the 163 subjects to the following two questions:

- (a) In general, do you have any hesitation about revealing your equality or superiority to men in intellectual, artistic or athletic competence?

Have considerable hesitation, 5 per cent; have some, 30.0 per cent; very little, 39.4 per cent; none at all, 25.6 per cent.

- (b) In your opinion, to what extent is it damaging to a girl's chances for dates if she is known to be outstanding in academic work?

Very much so, 2.5 per cent; somewhat, 24.5 per cent; a little, 37.6 per cent; not at all, 35.4 per cent.

<sup>1</sup> *Ibid.*, 187.

The answers to these questions as well as those in Table 1 indicate that a substantial proportion of the women believe they are penalized in their relations with men if they manifest equality or superiority with respect to the latter in knowledge or ability in various areas.

Another question in the repeat study which intended to get at the role conflict of the college woman was: How often have you been advised to act more "feminine"? This advice implies that its recipients were regarded by their "advisers" as over-playing the modern role, which, as Komarovsky points out, tends to be more masculine than feminine in character. Less than half the women (45.1 per cent) had "never" been told this. Of the remainder, about 31 per cent had been so advised "one or twice," 21 per cent "several times," and 4 per cent "often" or "very often." The sources of the advice were: mother 66.7 per cent, father 24.2 per cent, brother or brothers 10.3 per cent, sister or sisters 9.2 per cent, boy friend or friends 19.5 per cent, and others 6.9 per cent.<sup>8</sup>

The second quantitative finding in Komarovsky's study was that 26 per cent of her respondents had "some grievance against their families for failure to confront them with clear-cut and consistent goals. The majority, 74 per cent, denied having had such experiences."<sup>9</sup> The questions in the repeat study touching on this area and the responses to them are given in Table 2.

It should be noted that there is a divergence between Komarovsky's study and the present one in this phase of the inquiry. The former concerned itself with the conflict or contradiction in the conceptions held by the college woman's parents (or other family members) as to what her primary goals (her role) should be while in college. The present study investigated the contradiction between the conceptions of the college woman and those of her parents and others close to her. Inconsistency of parental expectations can be a source of difficulty, but so can parental expectations that are in complete accord when they are at variance with the college woman's own conception of what she should be doing. The critical question, therefore, is whether there is any incompatibility between the young woman's conception of what she should be doing in college (and what she wishes

<sup>8</sup> The percentages total to more than 100 because some of the women reported getting the advice from two or more sources.

<sup>9</sup> *Ibid.*, 185.

to do after college) and the conceptions with which she is confronted by mother, father, other family members, boy friends or the man she expects to marry.

Actually, of course, the college woman will find herself in disagreement with at least one of her parents when her father and mother differ in their expectations. Consequently, the 26 per cent of the girls in Komarovsky's sample reporting inconsistent parental expectations can be assumed to have been at odds on what they were doing in college with one or both of their parents. This figure can be compared with the percentages (Table 2, question 1) of women in the repeat study reporting some contradiction between their conceptions of their college

repeat study fell in this category.

Komarovsky's study did not distinguish between goals set by parents in the present and those urged for the future. The data of the present study indicate greater consensus between the college woman and her parents on her orientation to the future than on her present course of activities. Only 30 per cent of the subjects report some conflict with one or both parents in regard to what the latter would like them to do after finishing college.<sup>10</sup>

The data also revealed that conceptions of the college woman as to her present role in college are more likely to be in conflict with those of her father than with the conceptions of other family members whose opinion is re-

TABLE 2. PERCENTAGES OF 163 WOMEN REPORTING CONFLICT WITH FAMILY MEMBERS ON COLLEGE ACTIVITIES AND POST-COLLEGE PLANS

Question	Extent of Contradiction			
	None	A Little	Considerable	Total
1. How much contradiction is there between what you think and what the following think about how you should be spending your time in college?				
Father.....	66.3	27.4	6.3	100.0
Mother.....	70.1	25.5	4.4	100.0
Other family member whose opinion you respect.....	85.6	13.2	1.2	100.0
Boy friend or fiancé.....	83.2	15.6	1.2	100.0
2. How much contradiction is there between what you would like to do and what the following would like you to do when you finish college?				
Father.....	83.8	13.1	3.1	100.0
Mother.....	77.5	20.0	2.5	100.0
Other family member whose opinion you respect.....	89.3	8.8	1.9	100.0
Boy friend or fiancé.....	87.5	8.8	3.7	100.0

activities and those of their parents. About 34 per cent indicate some incompatibility with the views of their fathers, and 30 per cent some incompatibility with the views of their mothers.

But discrepancies between the conceptions of the college woman and those of *either or both* parents are present in 43 per cent of the cases, a significantly larger percentage than was found in Komarovsky's group. This difference, however, can be accounted for in part, at least, by the fact that the 26 per cent incidence of disagreement assumed for Komarovsky's sample does not include the women whose parents were in agreement with one another but whose expectations differed from those of their daughters. Twenty-three per cent of the women in the re-

spected and those of boy friends or fiancés.<sup>11</sup>

In order to ascertain the nature of the contradictions, subjects were allowed space in the questionnaire to state them briefly. Their statements show quite clearly that the incompatibility of views about goals while in college revolve about the question of the relative emphasis to oriented to a career one would not expect them

<sup>10</sup> The C.R. of the difference between 43 per cent and 30 per cent is 2.5.

<sup>11</sup> The C.R. of the difference between percentages of fathers and "other family members" with whom no contradiction is reported is 4.2. The corresponding differences between fathers and "boy friends or fiancés" has a C.R. of 3.2.

be given academic and social activities. In the majority of cases where there is some contradiction with the views of father or mother (or both), the parents are reported as favoring more attention to studies (the modern role) and less to dating and other social activities (the feminine role). This emphasis is also reported for other family members. Relatively few women indicated incompatibility with the views of their boy friends or fiancés.

The contradictions between the post-college goals of the subjects and those espoused by their parents, other family members, and boy friends or fiancés varied considerably in content. There is little or no evidence that the incompatibility of views in this sphere tends to involve the conflict of the modern and feminine roles.

#### INTERPRETATION OF THE FINDINGS OF THE TWO STUDIES

The findings of the questionnaire data of the repeat study are in essential agreement with those of the original study based on case materials. They agree (a) that a substantial proportion of college women feel called upon on occasion to pretend inferiority to men while conceiving of themselves as equal (or superior) to them, and (b) that many college women are exposed to inconsistent parental expectations or (in terms of the repeat study) have views contradictory to those of either or both their parents as to how they should be spending their time in college. This congruence of findings from studies employing different methods and using samples from two institutions in opposite regions of the country argues for the presumption that the condition to which the findings refer is rather widespread. However, the interview data of the repeat study dispose the writer to the tentative conclusion that the problem is less momentous for the college woman than is suggested by Komarovsky's report.

The impression derived from Komarovsky's analysis and some of the excerpts quoted from her personal documents is that the college woman faced with incompatible expectations tends to be considerably disturbed by the experience. The writer's viewpoint is that in the large majority of cases the incompatibility either is not taken seriously or is rather readily resolved.

This judgement is based on the fact that in all but a few cases the subjects of the repeat study when interviewed expressed no grievance or resentment against parents or other persons for confusing or creating a conflict in them about the course they were to pursue in college or

afterwards. The relatively unemotional statements made by subjects in regard to differences between them and their parents suggest that as a rule the differences are not pressed by the latter and at most are regarded as an annoyance by the former.

There is likewise little indication in the interview data that most college women who sometimes simulate inferiority to the male are at all agitated by the contradiction between their behavior and their conception of themselves as equals of the male. The interview data point to some considerations which may account for this. There appears to be a selective process at work which leads women to whom this contradiction would be upsetting to favor the company of male companions with whom they feel simulation is not necessary. The women who simulate may not be unduly troubled because they tend to regard their occasional pretense of inferiority as part of a "line" which is appropriate to the dating situation in which it characteristically occurs. Because she is not deeply involved in the casual dating relationship, the college woman seems to be able to use the "line" without being perturbed by the thought that in doing so she is not "being herself," namely the equal of the male. But when her association with a particular male develops into a more meaningful companionship or love relationship, the dating role and its "line" are no longer called for and she *can* be herself. It is only in the probably infrequent instances when a woman temperamentally or otherwise strongly disposed to the modern role becomes emotionally involved with a male who requires the feminine role of her that great psychological stress might be anticipated.

There are a number of possible explanations of the difference between Komarovsky's evaluation and that proposed here of the psychological consequences for the college woman when she is exposed to conflicting role conceptions. The writer's interpretation may not be valid because of the inadequacies of the interview data on which it is based. Or Komarovsky's case history excerpts—from which her evaluation has, in part, been inferred by the writer—inadvertently may not be typical of her entire sample in regard to the particular issue at question. Finally the possibility must be considered that there are some critical differences between the women of the original and repeat studies. The women investigated in the latter research are almost unanimously oriented to marriage, a home and children, and unlike college women

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to be militantly attached to the modern role. If Komarovsky's group included an appreciable number of career women, their vested interest in the modern role would have weighted the sample with persons for whom a conflict between the modern and feminine roles would be a matter of greater consequence.

### FAMILY SIZE OF STUDENTS AT A TEACHERS COLLEGE

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The size of the family has been the subject of numerous pieces of investigation. This has been especially true of the families of college students.<sup>1</sup> These studies have been concerned primarily with students in liberal arts colleges and restricted chiefly to colleges in New England. Despite the exploration of this phenomenon, no investigation, to the knowledge of the authors, has been published on the students enrolled in teachers colleges. This study will be concerned, therefore, with family size of students enrolled at a teachers college.

During the fall semester of 1948 schedules were submitted to 738 students at the Illinois State Normal University—an institution for the education of teachers located in central Illinois. Schedules were completed by approximately one-third of the student body. Care was exercised to draw the sample proportionately from members of the four undergraduate classes of the college. The inquiry concerned itself with the determination of the number of live births in the families of the students interviewed; also with the number of live births in the families of the fathers and of the mothers of the students.

The results showed that the average number of live births in the families of students was 3.68; also the average number of live births in the families of the mothers of students was 5.51 while the average in the families of the fathers was 5.25. Thus, in one generation, a substantial decline in the average size of families is demonstrated. Stated in different form, 54 per cent of the families of students had three

or fewer children while 28 per cent of the mothers' families and 30 per cent of the fathers' families fell into this category. These facts are consistent with those in the Mt. Holyoke study,<sup>2</sup> in which the average number of children in the families of students at Mt. Holyoke was 2.8 while the average size of families of the mothers' generation was 4.8 persons.

Compared with other colleges in which similar studies have been made, the results show that the average number of live births in families of

TABLE 1. VARIATION IN SIZE OF FAMILY BY  
INSTITUTIONS

Institutions	Date of Study	Average Size
Illinois State Normal University	1948	3.68
University of Maine	1940	3.67
Colby	1940	3.28
Bowdoin	1940	3.04
Vassar	1928-31	2.8-3.1
Mount Holyoke	1936	2.8

students enrolled at the Illinois State Normal University was larger than the average size in any of five other studies. This summary is shown in Table 1. There may be various reasons for this situation. First, students at teachers colleges are likely to be recruited more largely from open-country areas and villages—where birth-rates are higher—than the students whose families were examined in other studies. Second, they may be recruited from families whose culture patterns do not include, so largely as the families of students in liberal arts colleges, the limitation of family size.

In keeping with other studies, consideration was given to the size of families in relation to religious affiliations. Of the 738 persons covered in the study, 696 identified themselves as belonging to one of three religious classifications. The average family size of the 114 students both of whose parents were Catholics was 3.99 while the average for the 548 students whose parents were Protestants was 3.70. However, the 34 students whose parents were Protestant-Catholic showed 2.79 as the average family size. Stated somewhat differently, 29 per cent of the Catholic, 35 per cent of the Protestant and 56 per cent of the Protestant-Catholic families had no more than two live births.

That family size is declining regardless of

<sup>1</sup> In this study reference will be made to the study by Mabel Newcomer and Evelyn S. Gibson, "Vital Statistics from Vassar College," *American Journal of Sociology*, 29 (January 1934), 130-142; to Ruth O. Truex, "The Size of Family in Three Generations," *American Sociological Review*, 1 (August, 1936), 581-591; and to H. D. Lamson, "Family Size of College Students in Maine," *Social Forces*, 21 (December, 1942), 180-185.

<sup>2</sup> Ruth O. Truex, *op. cit.*

religion has been demonstrated by Stouffer<sup>3</sup> in his study of urban families in Wisconsin, where confinement rates for Catholic women were declining more rapidly than those for non-Catholics for the same period of time. Further verification of this can be found in the Lamson study at the University of Maine. Among the Catholics, family size declined from the parent to the student generation by 31.7 per cent while the decline in the Protestant families was only 23.2 per cent. In the present study at the Illinois State Normal University the decline in the size of Protestant families in two generations was 31 per cent while the decline in the size of Catholic families was 29 per cent. Although these findings are not in complete agreement with the Stouffer and the Lamson studies, they indicate at least that Protestant and Catholic families are declining at approximately the same rate.

Viewed from the angle of race differentiation, the average size of Negro families represented at the Illinois State Normal University—based on 24 persons who completed the questionnaire—is 4.58 while the 714 white students showed an average of 3.63 live births per family. This variation in the size of Negro families as contrasted with whites is likely to be correlated much more significantly with economic status than with racial identification.

In this study, comparison was made between family size and the degree of urbanization as represented in the size of population of the place of residence at the time of the birth of the student reporting. Of the 738 persons answering the questionnaire, 724 were able to make this identification. The summary of findings is shown in Table 2.

Obviously, the families of the open country were the largest. With one exception (the 50,000-99,999 class) in these five categories—and this may be due to an excessive number of cases—and inverse relationship exists between family size and the population of the place of residence at the time of the birth of the person participating in the study.

We may conclude that:

1. The families of students enrolled in a teachers college are larger than the families of students in liberal arts colleges. This may be another way of saying that the teachers college is looked upon as the most convenient

channel by which young people of limited financial resources may attain the social status attendant upon college matriculation and ultimately of identification with a professional class.

2. Families of the generation of students in the teachers college, like the families of students in liberal arts colleges, are substantially smaller than the families of their parents.

TABLE 2. SIZE OF STUDENT FAMILY IN RELATION TO RESIDENCE AT TIME OF BIRTH

Residence	Families	Children	Average
Open Country	174	731	4.20
Less than 10,000	257	917	3.57
10,000-49,999	175	604	3.45
50,000-99,999	35	101	2.88
100,000 and over	83	272	3.27
Totals	724	2625	3.62

3. The declining size from parent to student generation is characteristic of Catholic as well as Protestant families.

4. The Negro families are larger on the average than the white.

5. On the whole, family size of the students has declined with the increase in the population of the place of residence at the time of birth.

## SOCIAL CLASS AND THE "TYPICAL" AMERICAN COMMUNITY

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Brooklyn College

In viewing a number of studies which touch upon social class in America—such as Warner and company's studies in "Yankee City" and "Jonesville"; and the current Bureau of Applied Social Research study in a town in New York—one wonders how typical are the cities and towns investigated. Almost uniformly (an exception is Jones' work on Akron), these studies are concerned with communities which have a population of under 50,000. Are these communities "typical" of America?

In answering this question, one must decide on the purposes of attempting to get "typical" communities. The focus of class analysis is, it seems, the dynamics of social stratification and class identification and their impact on values and beliefs. For such purposes, are these small communities most "typical"? The theme of this note is that they are not.

<sup>3</sup> Samuel A. Stouffer, "Trends in the Fertility of Catholics and Non-Catholics," *American Journal of Sociology*, 41 (September, 1935), 143-166.

Richard Centers found in his study<sup>1</sup> that 51% of all white adult males in a national sample classified themselves as members of the working class; that 34% of white collar workers thought that they were in this class; that 77% of people who might be considered as in working class occupations, such as semi-skilled workers, etc., called themselves members of the working class. Centers also shows significant correlations between class identification and political orientation. Few people would have predicted such findings on the basis, for example, of the reports of the Warner surveys.<sup>2</sup> I believe that the difficulty lies in the choice of communities investigated.

If the purpose of such studies is to reveal the dynamics of class-formation, then one should look for communities which best portray the movement toward stratification. To restate the point, if Robert Lynd and others are correct in their contention that the United States is becoming *more* class-conscious, then we should look to communities which best reveal this tendency. That is, we should investigate communities which display deeper schisms within the community along class lines, because analyses of these localities will yield insight into the future. Analyses of communities like Yankee City give insight perhaps into past situations and into

situations with little change potential; consequently, they are not "typical" of changing America. Similarly, the town in New York under study may be typical of communities where class is not an important determinant of political attitudes, but by this very token it may be of limited usefulness in understanding the movement toward class-identification which seems to be taking place.

For a second reason, one may be concerned with the "typicalness" of these communities. The trend in the United States seems to be toward the large urban center or as the Census Bureau classifies it, the Metropolitan District, so that smaller communities contain a diminishing proportion of the total population. If this tendency continues, the under-50,000 (urban, rural or rural non-farm) locality may not be typical of the United States even in a numerical sense.

Moreover, in terms of where prime sources of change in American beliefs and structures may be located, the large urban center may be much more significant than the smaller areas. The "movers and shakers" of the American scene may very likely be the large rather than small communities, so that investigations of the former may have added value.

My plea then is for turning toward investigation of the motivation and behavior-tendencies in larger communities and toward recognition of the limited application of the findings of the small-community, conservative-ideology analysis. If we are seeking to find out about the future class orientations of the American community, we should analyze communities which are more typical of the future than they are of the past.

<sup>1</sup> *Psychology of Social Classes*, Princeton: Princeton University Press, 1949.

<sup>2</sup> The difficulties might be due to the defects of Centers' studies. Although I recognize some inadequacies in the questions he used to determine radical-conservative political beliefs, I do not believe that his core finding of 51% of the sample classifying themselves as working class is impaired. I recognize too that his class identification is not necessarily the same thing as class consciousness.

## COMMUNICATIONS AND OPINION



March 18, 1950

### REJOINDER TO COMMENTS BY GREENWOOD AND SCHMID

#### *To the Editor:*

Because of the rather blustering defense by Ernest Greenwood and Calvin F. Schmid<sup>1</sup> of Shevky and Williams' *Social Areas of Los Angeles*, following my very critical review of this monograph (October, 1949 issue of the *Review*) a short reply seems justified.

I hold this is an unimportant monograph because we can do little or nothing with the technique developed and the conclusions concocted insofar as answering questions which sociologists seek to have answered. Since the premises have been inadequately expressed, the statistical technique employed leads us nowhere. If the authors had glanced through most any introductory text in sociology and gained the important distinction between administrative and natural areas, and between social groups and aggregates, they might have so modified their work as to come up with something empirically useful to social scientists. As it is, they have expended great labor in the preparation of an essay, and used the time of this reviewer and no doubt others in studying this book in the hope that some small new fact or interpretation of urban ecology might be found which could be useful in the welter of misconceptions. They have only added to the confusion. Generalizations are made about selected urban aggregates as though they were social areas, *i.e.*, consensual areas. This kind of thinking belongs in the outmoded Giddings category, "consciousness of kind," *i.e.*, that if people in an area look and act alike, therefore they *are* alike and will act collectively—a false imputation.

The monograph is rooted in the debatable assumption that all Americans love a compromise. It errs in assuming that all sociologists express the same affection for means, medians, and modes. The truth in urban society rarely lies in the middle (since averages and average types

can only be formed when we are dealing with items of degree from a central homogeneous point) but more plausibly at the extremes. In any case an author should let his readers in on the secret as to where the poles of "urbanization" and "rural" rest and describe what they are like if he is intent on selling us the middle position. Shevky and Williams did not do this. They write: "Our interest is in *modal* rather than in extreme characteristics. . . ." (p. 61); "The index of urbanization is an *average* of the percentile scores of three variables: fertility, women in the labor force, and single-family dwelling units" (p. 69). From this we are told that (a) "the area of low fertility is the *typical* urban area of our society. . . ." (p. 41); (b) "the higher the proportion of women in paid occupations . . . the higher the urbanization" (p. 41); (c) "the lower the proportion of single-family dwelling units the higher the urbanization" (p. 41) (*italics mine*). Since the authors do not bother to tell us what urbanization is, something over which sociologists have been wrangling for years, their averages and correlations must be thrown out. It is a study of external factors in the community-forming process, a monograph which ignores the subjective selective tendencies or dispositions which urbanites have which determine the way in which they are *going* to react to these external influences playing upon them. It is necessary to take into account *social values*, which correspond roughly to these external factors, and to *attitudes* which correspond to these subjective or internal aspects of human experience. By addressing themselves to the crucial questions: How do city people conceive of themselves as hanging together as urbanites? and, What social areas show more potentialities for collective action than others?, the authors might have developed a useful guiding theoretical scheme which would have set their hypotheses—a framework inside of which interpretation and analysis of external conditions of existence could be carried on. The absence of an intelligible theoretical framework in this study suggests that the conclusions and interpretations evolved separate from the statistical material with which the authors were working. By failing

<sup>1</sup> In "Communications and Opinion," *American Sociological Review*, 15 (February, 1950), 108-110.

to examine the social-psychology of urbanism the manipulation of housing data led them to false generalizations. Since it is a demographic study, we are left to deduce that we always have a city and "urbanization" when, and only when, 2,500 people or more congregate in one spot—a false assignment.

Drs. Greenwood and Schmid expressed alarm that I had the audacity to question the use of housing statistics for the purpose of making generalizations about urban life. I am equally surprised that these men can take their stand. I too know that the Census gathers materials other than housing data. I only wish Shevky and Williams had relied upon it more thoroughly. Life in Los Angeles (of all places) no longer revolves around the place of residence. No longer is it

helpful to know where you sleep, but where you work, play, worship, and what not. What Shevky and Williams know about past community life continues to affect their thinking and has produced systems of analysis which are obsolete.

E. GORDON ERICKSEN

*University of Kansas*

#### A CORRECTION

In the review of *Prophets of Deceit* by Lowenthal and Guterman (page 161 of the February issue), this volume should have been referred to as one of a series of studies being prepared by the Department of Scientific Research of the American Jewish Committee instead of the American Jewish Congress.

## NEWS AND ANNOUNCEMENTS



**American Sociological Society.** The Committee on Contributed Papers for the 1950 annual meeting consists of Robert E. L. Faris, chairman, A. B. Hollingshead, and T. C. McCormick. Papers submitted for consideration should be sent not later than June 1 to Dr. Faris, University of Washington, Seattle 5, Washington.

**The Pacific Sociological Society.** Recently elected officers of the Society for 1950 are: President, Leonard Bloom; Vice-president, Southern Division, Ernest Greenwood; Vice-president, Central Division, Carlo Lastrucci; Vice-president, Northern Division, Joseph Bachelder; Members of the Advisory Council, Robert O'Brien and Paul Wallin. Gwynne Nettler continues as secretary-treasurer.

The Society's annual meeting will be held in Seattle, April 21 and 22.

**American Catholic Sociological Society.** Dr. Clement S. Mihanovich, director of the department of sociology at Saint Louis University, was elected president of the Society at its annual convention held at Fordham University in New York in December, 1949. The Most Rev. Edwin V. O'Hara, Bishop of Kansas City, Mo., was re-elected to the position of Honorary President. Others elected to office were Sister Mary Gabriel, G.N.S.H., of D'Youville College, Buffalo, N.Y., first vice-president; Dr. Edward A. Huth of the University of Dayton, Ohio, second vice-president; and the Rev. Ralph Gallagher, S.J., of Loyola University, Chicago, executive secretary.

**The Japan Sociological Society.** The Twenty-second Annual Meeting of the Society was held in Tokyo on October 15-16, 1949—the first day at the Nihon University, the second day at the Keio University. The meeting was attended by more than 250 members. Fifty-two reports were given on various aspects of social theory and social research, and three public lectures on the topic, The Population Problem in Japan. There were also two panel discussions on the teaching of sociology.

**The Fourteenth International Congress of Sociology** will be held in Rome during September 1950. This is the first post-war meeting of sociologists throughout the world, after an interval of more than a decade, to be held under the auspices of the International Institute of Sociology with headquarters at Paris. The Congress scheduled at Bucharest in 1939 was prevented from taking place be-

cause of the war. The Congress which shall take place in Rome during September 1950 represents the continuation of the Bucharest one. To the themes on the agenda of that Congress many others have been added. The participation fee in the Congress is set at lire 3,000. It entitles to a copy of the minutes printed in Italy and to the activities that will take place during the Congress. The sessions of the Congress will be held at the University of Rome. The adherences, the text of papers, and any other communications must be exclusively addressed to: Presidente del Comitato per il XIV Congresso Internazionale di Sociologia, presso la Società Italiana di Sociologia, Via delle Terme di Diocleziano 10, Roma.

**Second International Congress of Criminology.** Because of his departure for Berne where he will assume the leadership of the International Penal and Penitentiary Commission, Dr. Thorsten Sellin has relinquished the chairmanship of the Steering Committee for American Participation in the Second International Congress of Criminology and Dr. Paul W. Tappan has been elected in his stead. Correspondence regarding the Congress should be directed to Professor Tappan, Department of Sociology and Anthropology, New York University, Washington Square College, New York 3, New York. The dates for the Congress, which will be held in Paris, have been changed to September 10-19.

The purpose of the Congress is to bring together representatives of the various "observational" and "applied" sciences concerned with crime and its prevention and treatment, in the hope that a critical examination of the methods of investigation and the findings of each may lead to a synthesis which will yield a better understanding of the problem.

### PROGRAM

First day: Three analytical summary reports, or general reports, will be presented—one for sociology, one for biology and typology, and one for psychology, psychiatry, and psychoanalysis.

Second day: Three more general reports will be read, one for forensic medicine and police science, one for "penal science," and one for the treatment of juvenile delinquents (along the lines of the "penal science" report).

In other words, the first day will be devoted to the "observational" sciences, and the second to the "applied" sciences.

Four days will be devoted to reports and dis-

cussions of the basic problems of a coordinated or synthesized scientific study of the etiology of crime, with special emphasis on methods of research.

Third day: Three general reports will be presented, one offering a critical examination of basic concepts and research methods in the sociological approach to etiology, one serving the same function for the biological sciences, and one for the psychological sciences.

Fourth day: The authors of the nine preceding general reports will meet in committee.

Fifth day: One general report will be presented attempting to synthesize the three approaches above, concluding with a statement of the elements of a criminological definition of crime. General discussion.

Sixth day: One general report will be presented dealing with the specific criminological problem of what constitutes "social danger" and how a person can be defined as "socially dangerous" whether or not he has committed a crime. General discussion.

Seventh day: Discussion of proposal to organize an International Institute of Criminology. A general report will be presented by the International Society of Criminology.

Eighth day: Resolutions, motions, closing ceremonies.

During the congress there will be shown exhibits and motion pictures of diagnostic clinics, etc.

**The British Journal of Sociology.** This new quarterly has just been started by the London School of Economics, under the editorship of Morris Ginsberg, D. V. Glass and T. H. Marshall. The aims of the Journal are to provide a medium for the publication of (a) original researches in the various fields of sociology, social psychology, and social philosophy, (b) critical studies or discussions in various fields of enquiry, (c) surveys of developments and literature in special fields, and (d) book reviews. The new Journal hopes to secure the co-operation of scholars in other countries, to serve as an international focus, and to further the development of comparative studies. The price is 30s per annum, post free. Subscriptions are handled through Routledge & Kegan Paul Ltd., Broadway House, 68-74 Carter Lane, London, E. C. 4.

**The Edward L. Bernays International Tensions Award.** A \$1,000 U. S. Government bond, will be presented by the Society for the Psychological Study of Social Issues to the individual or group contributing the best action-related research on some aspect of the problem of reducing tensions in relations between nations. The award has been made possible by a gift to SPSSI by one of its members, Edward L. Bernays, counsel on public relations of New York.

All research published or completed during 1949 or 1950 will be eligible for consideration. Manuscripts reporting such completed research, but which

have not yet been published, are eligible. All reports in duplicate must be received by the chairman of the committee of judges, all of whom are social scientists, by July 1, 1950.

The chairman of the committee of judges is Dr. Robert Macleod, Department of Psychology, Cornell University, Ithaca, New York.

All inquiries for information concerning the award should be addressed to Ronald Lippitt, President, Society for the Psychological Study of Social Issues, Research Center for Group Dynamics, University of Michigan, Ann Arbor, Michigan.

**The Edward L. Bernays Radio-Television Award.** In an attempt to encourage original research on the effects of modern media of communication on the people and institutions of the United States, the American Sociological Society will present the Edward L. Bernays Foundation Radio-Television Award to the individual or group contributing the best piece of research on the effects of radio and/or television on American society. Presentation of the Award, a \$1,000 U. S. Government bond, the gift of the Foundation, will be made at the Society's annual convention which will be held in September at Denver, Colorado.

The contest is open to social scientists here and abroad, and will be governed by the following rules:

Any individual or group wishing to compete for the Award must submit in duplicate a report on the research on or before July 1, 1950.

Any research study completed during 1948, 1949, or the first half of 1950 will be eligible for consideration. Both published and unpublished studies may be submitted, as well as research not fully completed for which a preliminary report is available.

Research may cover radio or television or both.

All reports should be submitted as far in advance of the closing date as possible to the Chairman of the Committee of Judges, Dr. Clyde W. Hart, National Opinion Research Center, 4901 S. Ellis Avenue, Chicago 15, Illinois.

Inquiries for further information should be sent to Mr. Hart or to Matilda White Riley, Executive Officer of the American Sociological Society, 427 West 117th Street, New York 27, N.Y.

The committee of Judges was appointed by the Executive Committee of the American Sociological Society, and consists of: Clyde W. Hart, Director of the National Opinion Research Center; Bernard Berelson, Chairman of Committee on Communication, University of Chicago; Carl Hovland, Professor of Psychology, Yale University; Robert K. Merton, Professor of Sociology, Columbia University; Edward Suchman, Assistant Director for the Social Sciences, Cornell University; Leland DeVinney, Assistant Director of the Social Science Division, Rockefeller Foundation; and Theodore Newcomb, Professor of Sociology and Psychology, University of Michigan.

**Anti-Defamation League.** Persons interested in serving as paid staff members of summer workshops in intergroup and intercultural education may communicate with Leo Shapiro, National Director, Department of Education, Anti-Defamation League, 327 South LaSalle Street, Chicago 4, Illinois. A typical workshop usually runs about six weeks, five day per week.

**Psychodramatic Institute.** Announcement is made of three conferences covering psychodrama, sociodrama, sociometry and group psychotherapy, which will be held in Beacon, New York, on April 8-10, May 27-30, and July 1-4, 1950. For further information write to Moreno Institute, Beacon, N.Y.

**Social Science Research Council.** Plans for Faculty Research Fellowships to help young college faculty members, selected for their outstanding research ability, to do original work in the social sciences were announced today by Dr. Pendleton Herring, president of the Social Science Research Council. A grant of \$465,000 has been received from the Carnegie Corporation of New York to finance the fellowship program for a five-year period.

Designed to enable young social scientists with exceptional research ability to advance their research activities early in their teaching careers, the fellowships will provide substantial financial aid to recipients for approximately three years. In each case, cooperative financial arrangements will be worked out with a recipient's college or university so he will be relieved of half his teaching duties in order to do sustained research.

Fellowships will be awarded each year to a total of seven men and women, not over 35 years of age, chosen from the whole range of the social science faculties in American colleges and universities. Only a single appointment will be made at a given institution in any one year. A representation from different types of colleges and universities in all parts of the country will be sought.

The Council hopes to award the first Faculty Research Fellowships for the academic year, 1950-51. Recipients of the fellowships will be selected for their past achievements as well as their promise of future accomplishments on problems involving the formulation and empirical testing of general hypotheses concerning human relations and social institutions. Every candidate must have a doctoral degree or its equivalent in one of the social science fields, must be a regular faculty member of a college or university in the U.S. and must be nominated or endorsed by the head of his department or dean. Detailed information on the fellowships may be obtained from Elbridge Sibley, executive associate of the Council at its Washington office at 726 Jackson Place, N.W.

**College of the City of New York.** The New York City Youth Board has awarded an annual grant of \$5,000 to the City College Community

Service Division under the direction of Professor Harry M. Shulman. The funds will be used for group work with juvenile street clubs in the college area. Richard L. Brotman has been appointed as group worker for the project. Mr. Brotman and sixteen students will work directly with the street clubs. They will provide leadership and athletic coaching in an effort to channel the activities of club members into constructive projects.

**Drew University.** David M. Fulcomer has left his post in the department of sociology (held since 1938) and his chairmanship of the division of social studies to take the position of professor of family sociology in the department of economics and sociology at Iowa State College. His successor at Drew is to be appointed this spring and will take office in September, 1950.

**Fisk University.** The Department of Social Sciences, under the direction of Dr. Preston Valien, Chairman, completed a housing survey of Nashville which was used by the Nashville Housing Authority as a basis for its request for additional public housing under the Federal Housing Act of 1949. Favorable reactions to the survey resulted in the allocation of 2100 public housing units to the City on August 29. This survey has been published by the Nashville Housing Authority.

Dr. Valien has been appointed by Governor Gordon Browning of Tennessee as a member of the Advisory Committee of the State Department of Public Welfare. He is also serving as research consultant on a survey of Jackson County, Florida.

During the past summer, Mr. Reginald Barrett, visiting lecturer in sociology, acted as consultant during UNESCO reorganization of its major pilot project in the Marbial Valley, Haiti.

Dr. Donald Wyatt, assistant professor of Sociology, has left for Paris, France to do secondary research on the peoples of French Morocco with specialists at the University of Paris and the French Committee on Islamic Studies. Mr. Wyatt is a recipient of a Fulbright Award for 1949-50.

Dr. Jitsujichi Masuoka, associate professor of sociology, is on leave for one year to join the faculty of the University of Michigan, where he will offer a course on the analysis of social change in modern Japan.

Miss Inez Adams, who recently completed her work for the doctorate in anthropology at Columbia University, is joining the faculty for the second semester as lecturer in anthropology. Miss Adams is replacing Dr. Kenneth Little, who has returned to the London School of Economics in London, England.

Mrs. Johnnie Ruth Clarke has been appointed research and administrative assistant in the Department. She was formerly head of the Social Science Division of Bethune-Cookman College.

The Sigmund Livingston Fellowship, given by the Anti-Defamation League of B'nai B'rith for re-

search in the field of minority group relations, has been awarded to Dr. Edna Cooper Masuoka for the year 1949-50.

Mr. Arthur L. Johnson, who received his master's degree from Atlanta University, has been appointed research fellow in the Department for 1949-50.

Miss Gladys Churchwell and Mr. Stanley H. Smith have assistantships in the Race Relations Department of the American Missionary Association at Fisk University.

Alpha chapter of Tennessee of the National Honorary Sociological Fraternity recently initiated fifteen students. John Hope Franklin, professor of history at Howard University and author of *From Slavery to Freedom*, was the guest speaker at the banquet following the initiation ceremony.

The Department has several research fellowships and graduate scholarships available for the academic year 1950-51. The research fellowships pay up to \$1,000 for the academic year and usually require the applicant to possess the master's degree. The scholarships vary in amount from part-tuition to slightly more than full tuition and are for persons desiring to work for the master's degree. Further details can be obtained from Preston Valien, Chairman, Department of Social Sciences, Fisk University, Nashville, Tennessee.

**Marshall College.** A chapter of Alpha Kappa Delta, national honorary sociology fraternity will be established at Marshall College during the spring semester. Two members of the staff, Dr. J. T. Richardson and Walter S. Corrie, Jr., are already members of the organization, the former having been elected at the University of Missouri and the latter at Baylor University. The Marshall College unit will be known as Alpha of West Virginia; as the name indicates, it is the first chapter to be organized in this state.

Plans are rapidly being completed for the Conference an Old Age to be held under the auspices of the Department of Sociology on June 20-21, 1950. A number of outstanding authorities in this field have signified their intentions of taking part in the two-day meeting. Dr. Clark Tibbitts, who organized and presented a similar conference at the University of Michigan in July, 1949, will be a featured speaker at the Marshall program. His subject will be Social Implications of the Aged. He will be followed by Dr. Murray Ferderber of Pittsburgh who has been responsible for rehabilitating large numbers of elderly people and restoring them to a useful life. Dr. R. Clyde White of Western Reserve University will speak on Areas of Inclusion for the Aged Under the Social Security Act. Also appearing on the program will be Mr. Rupert Kettle, Administrative Assistant in the Department of Social Welfare, Lansing, Michigan, who will speak on Sheltered Care for the Aged.

Several members of the Marshall faculty, including Dr. Kenneth L. Loemker of the Department of Psychology, Dr. Harold M. Hayward of the

Department of Sociology and Mr. Walter S. Corrie of the same department, will read papers and conduct round table discussions during the conference. Mrs. Frances Burdette and Mr. Norman Simpkins are members of the committee for local arrangements in connection with the meeting.

In order to make it a college-community project a planning committee made up of representatives from the local schools, press, churches, public welfare, radio stations, Chamber of Commerce, and other civic groups has been appointed. It is the purpose of the conference to approach the problem of aging from the viewpoints of physical well-being, social implications, political significance, economic needs and spiritual welfare.

Five new courses including Social Institutions, Social Legislation, Race Problems, The American Negro, and Medicine in Modern Society have recently been added to the curriculum of the Department of Sociology. The American Negro and Race Problems will be taught as seminar courses. The entire list of offerings as given by the department has been re-organized and in some instances re-numbered in order to harmonize the work being done at Marshall with the same types of programs being given in other colleges and universities.

**New Mexico Highlands University.** Dr. A. R. Mangus, Professor of Rural Sociology of Ohio State University, will be a visiting professor of sociology at Highlands University this summer.

Dr. James E. McKeown, Assistant Professor of Sociology will be on leave to study workers' living conditions in Britain and Scandinavia.

**New York University, Graduate School of Arts and Science.** Developments in the fields of criminology and correction at New York University during the recent past include:

1. The institution of a Program in Criminology and Correctional Administration within the Graduate School of Arts and Science and the Graduate Division of Public Service. Professor Paul W. Tappan has been named coordinator of the Program. A special program for the training of personnel in the institutional care of problem children has been made possible by a grant from Lavenburg Center House which also provides a limited number of fellowships and internships at Youth House and Girls' Camp, detention facilities serving The Children's Court of New York City.

2. New York University was host to the third annual meeting on June 4, 1949 of the Correctional Service Associates.

3. Under the direction of Professor Tappan and Dr. Edward Galway the professional level course on the subject of probation and parole is continued with practicing specialists in various aspects of the field as visiting lecturers.

During the summer Professor John Landgraf continued field research, under a grant from the Viking Fund, in western New Mexico. The research

is associated with the Laboratory of Social Relations at Harvard University which is assisting with funds for certain expenses incident to the summer's study.

A Viking Fund grant-in-aid enabled Professor John J. Honigsmann to study the modern Eskimo community at Great Whale River, P.Q., during the summer of 1949. He was accompanied in his study by Dr. Nathan Altshuler, now of the University of Michigan.

Professor Clyde V. Kiser attended the meetings of the International Union for the Scientific Study for Population, August 27-September 2, 1949, in Geneva, Switzerland, and the meetings of the International Statistical Institute in Bern, Switzerland, September 5-10, 1949.

Professor H. Ashley Weeks and Henry J. Meyer served during the summer as consultants, appointed by the Office of Military Government for Germany, to the Darmstadt (Germany) Community Survey.

Dr. Lawrence K. Frank is conducting the graduate course in "The Family."

Professor Wilbert E. Moore and Professor Melvin Tumin, both of Princeton University, were visiting lecturers for the summer session.

Mr. Edgar Borgatta, who received a Fellowship in the Graduate School, is an instructor at University College of New York University.

Professor Tappan is currently engaged in coordinating materials for a volume on *Contemporary Correction*, to include sections prepared by more than thirty specialists in the various fields of correction. He is also preparing three chapters for a volume on social problems to be edited by Professor Francis Merrill.

**Northwestern University.** Professor William F. Byron has been appointed to the Citizens' Advisory Committee of the Juvenile Court of Cook County, a committee responsible for the personnel examinations under the merit system of that Court. Professor Byron is also Chairman of the Citizens' Recreation Commission of the City of Evanston, which is concerned with current problems and programs of the city's system of municipal recreation facilities.

**Purdue University.** Applications are being received for Graduate Assistantships in support of study toward the Master's degree in Sociology. Stipends range from \$60 to \$120 per month, depending upon the service required. Present assistants are as follows: Robert O. Andrews, Gerald Bump, Reisha Forstat, Sophie K. Freiser, Clarence Kraft, Sverre Lysgaard, Nell Percival, Robert Philbrick, John Van Dyke, and Adam Yff.

Rilma Buckman is teaching as a special instructor during the Spring Semester. Regular staff members are as follows: Harold T. Christensen (Chairman), Dwight W. Culver, Walter Hirsch, J. Roy Leevy, J. E. Losey, Hanna H. Meissner, Louis Schneider, A. A. Smith, and Elizabeth K. Wilson.

Though the graduate program in sociology has been underway for only two and one half years, a steady expansion is being experienced. The first degree was granted in June, 1949. Since that date there have been seven others, with a dozen or so "on deck."

**Queens College.** Dr. Harry Alpert, Chairman of the Department of Anthropology-Sociology at Queens College, has resigned to accept a position with the Division of Statistical Standards of the Bureau of the Budget. Professor Hortense Powdermaker will serve as Chairman of the Department for the spring semester.

Dr. Powdermaker's forthcoming anthropological study of Hollywood will be published by Little, Brown & Co. next fall.

Dr. Sidney Axelrad, formerly of the New School for Social Research, will serve as lecturer in the Department for the spring semester.

**Roosevelt College.** Miss Rose Hum Lee has been appointed Acting Chairman of the Sociology Department for the Spring and Summer of 1950. Mr. Arthur Hillman will be in Norway and will also visit Sweden and Finland during the Spring and Summer. His work in Norway will be under a Fulbright Research Appointment.

**Southern Illinois University.** A program of pre-professional training for social work has been inaugurated with the following specific objectives: (1) To give students a better understanding of the meaning of professional social work and stimulate interest in its objectives and its possibilities as a career. (2) To give interested students an integrated program of pre-professional training which will prepare them for admission to a graduate school of social work. (3) To provide students preparing for other professional fields with a broad knowledge of the field of social work, existing organizations operating in that field, and the philosophy and principles by which it is guided.

The work is being offered in the College of Liberal Arts, and Sciences, and, in addition to a broad background training in the social sciences, includes a sequence of three courses dealing specifically with the field of social work: Introduction to Social Work, History and Organization of Social Work, and Introduction to Interviewing. These courses are being taught by Mrs. Mary Andrews Aken of the Division of Child Welfare, Illinois Department of Public Welfare.

An organized research program dealing with conditions and problems in Southern Illinois is being directed by Dr. W. J. Tudor. Work to date has dealt largely with analysis of demographic material available from secondary sources, but a series of community studies is projected. One such study has been completed as an M.A. thesis project, and another is now in progress. The Department is also engaged in making a study of mobility based upon

data to be secured from the 2800 students comprised in the resident student body.

In cooperation with the National Conference of Christians and Jews, the Department will conduct a workshop on community relations in Collinsville, Illinois (East St. Louis area) during the week of March 13 to 17. The staff of the workshop will consist of Professors J. K. Johnson and W. J. Tudor of Southern Illinois University, and Dr. William Vickery of the University of Chicago Center for Inter-group Education.

Dr. J. Charles Kelley, now at the University of Texas, has accepted appointment as Professor of Anthropology and Director of the University Museum. He will join the faculty in June, 1950. Dr. Kelley will devote his time during the summer to the reorganization and development of the University Museum, and will begin teaching courses in anthropology in the Fall Quarter, 1950.

Mr. William H. Harlen returned at the beginning of the Fall Quarter, 1949, after spending a year in graduate study at the University of Chicago.

Mr. Herman R. Lantz of Ohio State University will teach courses on family and marriage in the summer session, 1950.

**Stanford University.** Dr. Ernest Burgess offered a graduate course in social pathology during the winter quarter. Dr. Burgess and Paul Wallin brought toward completion a report on their long-time study of marriage which will be published in 1951 by Harcourt, Brace & Co.

Mr. Frederick W. Terrien, who is completing work this year for his Ph.D. degree at Yale University and is currently at the University of Illinois, has been appointed Assistant Professor of Sociology for the coming year. He will assume responsibility for courses in public opinion, social organization, and related subjects.

Dr. Felix Keesing, executive head of the Department of Sociology and Anthropology, will be on leave for the academic year 1950-1951 to conduct researches in the Pacific area.

**University of Bridgeport.** Professor Joseph S. Roucek, Chairman of the Department, conducted a course in Educational Sociology in the fall semester for the New School For Social Research; during the spring semester he will offer a graduate course in Slavonic Backgrounds for the same institution. In addition to his routine duties at the University of Bridgeport, he served as advisor of the Sociology Colloquium, composed of the student members of the American Sociological Society, believed to be the first organization of this kind. The Colloquium arranged for a series of community meetings with the organizations of foreign-born Americans and started collecting historical material pertaining to the sociological movements in the Bridgeport area.

**University of Denver.** Dr. Eugene P. Link, Chairman of the Department, together with his

wife, Beulah M. Link, will lead a five-week study-tour of England, Holland, Denmark, Sweden, and France studying marriage and family patterns and services, with special concern for community and governmental aids to strengthen family relationships. The tour is sponsored by the University of Denver under the auspices of Columbia University World Studytours, and college credit, with an upward limit of 10 quarter hours, will be arranged in suitable cases. Those interested should write to Dr. Goodwin Watson, Columbia University.

Dr. Link will address the American Psychiatric Association at its Annual Convention in Detroit on May 1 on "The Sociologist Looks at Marriage Counselling."

A new basic course in human relations starting next Fall will supplant the present introductory courses in sociology, anthropology, and psychology. The new course, with the development of which Mr. Charles Bolton and Assistant Professor Arthur Shirey from the Sociology Department have been particularly concerned, will be a three-quarter sequence development.

Mr. Arthur A. Lindsay has received a grant from the Bureau of Research in Humanities and Social Development to make a study of the slant in newspaper and magazine writing on minorities. Mr. Lindsay has been elected Chairman of the Social Science Section of the Colorado-Wyoming Academy of Sciences.

"Towards an Urban Sociology of Denver," the Master's thesis of Mrs. Barbara Sternberg, has been published by the University of Denver Press as number one in a new series of Social Science Monographs. Mrs. Sternberg has been appointed by the Denver Area Welfare Council to supervise an exploratory study of the Spanish-American population of Denver.

**University of Iowa.** David B. Stout, previously of the Department of Sociology and Anthropology, Syracuse University, joined the staff in September as an Associate Professor. He is devoting his time to expanding and reorganizing the curriculum in cultural anthropology; also to directing research in this area. To promote such research the University has become a participating member in Human Relations Area Files, Inc., and will appoint a number of research assistants to develop research utilizing and contributing to these resources. Professor Stout is to be in charge of the Files on the Iowa campus. He will teach during the summer of 1950 in the Department of Anthropology at U.C.L.A.

Erich Rosenthal, previously research associate at the University of Chicago, was appointed to the staff in September as an assistant professor. He is teaching courses in methods of sociological research and industrial sociology. The offerings in social statistics are being increased since a demonstrated ability in the use of statistics, plus a reading knowledge of at least one foreign language, is now

a requirement for the Ph.D. in sociology.

Professor E. William Noland resigned in June to accept a position in the Department of Sociology and the Institute for Research in Social Science at the University of North Carolina, where he will develop courses and conduct research in industrial sociology.

Charles C. Rogler resigned from the staff to accept a position as associate professor of sociology at the University of Akron. He assumed his new duties in September.

John W. M. Whiting, who had been offering a course in cultural anthropology as well as serving as research professor in the Child Welfare Research Station, resigned in June to accept a position at Harvard University.

F. James Davis resigned his instructorship upon the completion of his Ph.D. in June and accepted a position as assistant professor of sociology at Western State College, Colorado.

E. Theodore Bauer, who also received the Ph.D. in June, is now associate professor of sociology at Morningside College in Sioux City. Previously he was assistant professor of sociology at Iowa Wesleyan College.

Harold W. Saunders has been promoted to a professorship and reappointed Chairman of the Department for a second three-year term. He is continuing his research in the theory of population and conducting a study of the measurement of standard of living as related to marriage and family as social values. The proceedings of the Iowa Conference on Attitude and Opinion Research held in Iowa City in February, 1949, have appeared in book form, *The Polls and Public Opinion*, edited by Norman C. Meier and Harold W. Saunders.

Robert G. Caldwell joined the staff in September, 1948, as professor of criminology and penology, succeeding Fred E. Haynes, now retired. The curriculum in this area is being expanded and reorganized and the correctional and penal institutions of the state are being used for research and in-service training purposes. A new research project is being established under his direction devoted to the study of "life-termers" in the State Penitentiary, Fort Madison, Iowa. Professor Caldwell is the author of *Red Hannah: Delaware's Whipping Post*, published by the University of Pennsylvania Press.

Manford H. Kuhn has been promoted to an associate professorship and is expanding the course work in social psychology with the introduction of new courses in childhood and adolescence and a seminar in culture and personality. He is continuing his study of role definition among the Old Order Amish and is now preparing a manuscript for publication on the social psychological approach to the study of social problems.

Robert H. Talbert, who joined the staff in September, 1948, as an assistant professor, having come to the department from Texas Christian University, is developing courses in urban sociology and minority groups. He was co-author with Austin F. Por-

terfield of the recent publication, *Crime, Suicide, and Social Well-Being in Your State and City*.

Assistant professor Carrol M. Mickey is in charge of the reorganization of the introductory course and is assuming responsibility for the area of collective behavior and social movements.

John L. Gould is completing his research on adjustment in old age in a typical Iowa village for the Ph.D. and is continuing to serve as an instructor in the introductory course.

Newly appointed instructors in the beginning course are John H. Mabry, Neil M. Palmer, Ralph S. Holloway, and George R. Ragland. Mr. Palmer received his M.A. at the University of Texas. Mr. Ragland is on leave from Texas College, and is in the process of completing his work toward the Ph.D. degree. Mr. Mabry and Mr. Holloway received the Master's degree at the State University of Iowa.

**University of Minnesota.** Dr. F. Stuart Chapin voluntarily relinquished the directorship of the School of Social Work at the University of Minnesota to devote a greater portion of his time to sociological research. Dr. Chapin was honored at a banquet attended by approximately 200 University colleagues, civic leaders and graduate students for his distinguished leadership of the School of Social Work for 27 years. The major address of the evening was presented by Malcolm M. Willey, Vice President of the University, who reviewed the outstanding contributions of Dr. Chapin to the development of a scientific sociology. Dr. Chapin retains his position as Chairman of the Department of Sociology, and Professor John C. Kidneigh, Associate Director of the School of Social Work, was promoted to the directorship.

The Department of Sociology has available 8 assistantships and several part-time instructorships with stipends ranging from \$672 to \$1485. Inquiries should be addressed to the Chairman, Department of Sociology, University of Minnesota, Minneapolis 14, Minnesota. The Laboratory for Research in Social Relations is also accepting applications for research assistantships. Inquiries should be addressed to the Executive Secretary of the Laboratory. Assistantships usually include exemption from fees in the Graduate School and permit assistants to carry on regular course and seminar work leading to advanced degrees.

Professor Louis Wirth of the University of Chicago will offer a course in urban sociology during the first summer session and will participate in the university project on cultural relations and peace and war.

Professor Hornell Hart of Duke University will serve as visiting professor during the second summer session and will offer courses in cultural change and the social implications of the atomic age.

Professor Lowry Nelson will be visiting professor of sociology at the University of Utah during the spring quarter. Dr. C. E. Lively of the University

of Missouri will serve as visiting professor during Dr. Nelson's absence. In the summer Dr. Nelson plans to do a restudy of two Mormon villages which he originally studied twenty-five years ago.

Professor George B. Vold is working on a book in comparative criminology.

The University of Minnesota Press recently announced the publication of *The Negro's Morale* by Arnold M. Rose. Professor Rose is now completing a study of workers' attitudes toward their union and workers' solidarity.

Professor Douglas Marshall is engaged in a study of attitudes of rural high school students and adults to education. He also gave one of the major addresses on population trends at the University of Wisconsin Farm and Home Week.

Professor Monachesi and Professor Martindale have recently completed a text in introductory sociology which will be published by Harper's in 1950.

Professor Theodore Caplow is now working on a book in occupational sociology which will be published next year. He is also engaged in a study of the organization of the University of Minnesota's construction and maintenance activities.

Professor Neal Gross in collaboration with Dr. Bryce Ryan has completed a study on technological diffusion which will be published by the Iowa State College Agricultural Experiment Station.

Several departmental members are engaged in interdisciplinary research in the Laboratory for Research in Social Relations. Professor E. D. Monachesi is engaged in a study concerning correlates of prejudice in elementary school children. Professor Neal Gross is completing studies in determinants of group cohesiveness and group productivity. Professors Gross, Rose and Monachesi are also engaged in research in the area of social responsibility in a complex society.

**University of Tennessee.** Dr. William E. Cole, Head of the Department, and Mr. Gordon R. Clapp, Chairman of the Board of Directors of T.V.A., presented papers on the T.V.A. at the United Nations Scientific Conference on The Conservation and Utilization of Resources. Dr. Cole's subject was "The Impact of T.V.A. upon the Tennessee Valley Region."

Dr. William E. Cole has been named Chairman of the Advisory Committee to the State Public Welfare Department. The Committee, composed of fifteen lay and professional leaders, will advise on personnel, program, and new legislation.

The Bureau for Sociological Research announces its first publication, *The People of Tennessee: A Study of Population Trends*. The study was conducted by Dr. John B. Knox, Director of the Bureau.

Dr. William B. Jones, Jr. has begun a comprehensive study of Tennessee's system of paroling its state prisoners. The study, made at the request of the Division of Pardons, Paroles and Probation,

will be conducted through the Bureau for Sociological Research.

Dr. Virgil E. Long has been appointed a member of the Research Committee of the National Council on Family Relations, and Chairman of the Committee on Research of the Southern Council on Family Relations.

**Washington and Lee University.** A course in Regionalism is being offered by the sociology department for the first time this spring. Taught by Dr. Marshall Fishwick, it will deal with the European heritage, environmentalism, the growth of social institutions, and the philosophy of regionalism.

## OBITUARIES

**Edwin Lee Earp**, retired Methodist minister and former sociology professor, died on Feb. 3, 1950 in Basking Ridge, N.J., at the age of 82. Dr. Earp taught at Syracuse University from 1904 to 1909 and at Drew Theological Seminary from 1909 to 1937. He received his B.D. degree from Drew University and his Ph.D. from Leipzig University, Germany. He was the author of several books on sociology and one on church history. Dr. Earp was a member of the American Sociological Society.

**Edwin Rogers Embree**, who was president of the Julius Rosenwald Fund from 1928 until the Fund's termination in 1948, died in New York on February 21, 1950. He was 67 years old. He received his B.A. degree at Yale University in 1906 and an M.A. in 1914. The University of Hawaii conferred on him the Litt.D. in 1936 and the University of Iowa the LL.D. in 1941. After serving at Yale for ten years as editor of the *Yale Alumni Weekly*, alumni registrar, and assistant secretary, he joined the Rockefeller Foundation with which he remained for ten years as secretary, director of the division of studies, and vice president. As president of the Rosenwald Fund, Mr. Embree devoted his efforts to the study of races and of Negro education and relations of Negroes and whites. From 1943 to 1948 he was chairman of the Mayor of Chicago's Committee on Race Relations. He was a trustee of Roosevelt College and also of Sarah Lawrence College. Recently he had been president of the Liberian Foundation, a joint American-Liberian organization formed in 1947 to aid the advancement of the West African republic. Among his writings are "Brown America, the Story of a New Race," "Indians of the Americas," "American Negroes—A Handbook," "Brown Americans: The Story of a Tenth of the Nation," "Thirteen Against the Odds," and a booklet, "The Business of Giving Away Money."

**Thomas Jesse Jones**, sociologist and director emeritus of the Phelps-Stokes Fund, died in New York on Jan. 5, 1950 at the age of 76. Long a leader in the field of race relations and Negro education in America and Africa, he joined the

Fund in 1913 and became educational director in 1917, a position from which he retired in 1946. He received his B.A. degree from Marietta College in 1897; two years later he obtained a Master's degree at Columbia University and in 1904 a Doctorate of Philosophy. In 1902 he became director of the research department of Hampton Institute. He left Hampton in 1909 to spend three years as a statistician in the U.S. Bureau of the Census, giving special attention to statistics concerning Negroes. Then he joined the staff of the U. S. Bureau of Education, and in 1913 became an agent of the Phelps-Stokes Fund with the understanding that if the Fund met the expenses the Bureau would undertake a study of Negro education. The study was completed in 1916. He was instrumental in establishing the Commission on Interracial Cooperation in the South after World War I. He headed several commissions to study conditions among the natives in Africa and in the Near East. In 1937 he directed a commission to study the Navajo Indians

and he edited the commission's report, "The Navajo Indian Problem." He was a member of the American Sociological Society and the American Statistical Association, and was a trustee of various organizations. His personal works included "Four Essentials of Education" and "Essentials of Civilization."

**Benoy Sarkar** of the University of Calcutta died in Washington, D.C., on November 24, 1949 at the age of 63. He was on a lecture tour of American universities sponsored by the Institute of International Education. His works included "The Science of History and the Hope of Mankind," "Introduction to the Science of Education," "Sukra-niti, a Study of Hindu Economics and Politics," "The Positive Background of Hindu Sociology," "The Folk Element in Hindu Culture," "Love in Hindu Literature," and "Chinese Religion Through Hindu Eyes." He also translated the autobiography of Booker T. Washington into Bengali.

## BOOK REVIEWS



✓ *Human Society*. By KINGSLEY DAVIS. New York: The Macmillan Company, 1949. xiv, 655 pp. \$4.25.

"Can the anonymity, mobility, impersonality, specialization, and the sophistication of the city become the attributes of a stable society, or will society fall apart? How can devotion to a common set of values and a common set of mores be maintained in a highly literate, scientifically trained, individualistically inclined, and sceptically orientated population?" This question which the author raises in his discussion of urbanism is in a sense the theme of the book, as indeed it is of many another book of our day. Professor Davis is too experienced a teacher and too wise a man to provide the positive answer that can come only from the doctrinally dedicated; but one of the numerous merits of his book is its frank recognition not only of the normative elements of human experience but of the living relationship between the scientific interests of an age and the deep moral problems which lie behind them.

Not that it is a work in moral philosophy. It is in the best tradition of introduction to an area of scientific inquiry. It is objective without being dull, perceptive without being visionary. It brings problems alive for the aspiring social scientist and does not promptly kill them with anesthetic doses of pseudo-neutrality. Those who, like this reviewer, have long admired Professor Davis's articles on kinship, stratification, population, and socialization will welcome the appearance of an introductory volume that incorporates so many of their distinctive insights. Because they have been incorporated, the volume is happily free of that gelded placidity of tone which in too many instances empties sociology of its intrinsic problem-appeal, leaving vacuous categories which have greater attraction to the technician than to the budding sociologist.

The book begins with an excellent statement of the theoretical and research objectives of sociology. Differentiation among the social sciences is clear, and so is the crucial distinction between moral objectives and scientific prob-

lems. From there we move into a generally detached and lucid treatment of social norms, status, the elements of social action, and the basic forms of interaction. These are the points of departure, and, on the whole, the theoretical elements are related significantly and convincingly to the areas of fact and empirical investigation which fill the greater part of the book. The treatments of rural and urban communities, class, and personality are among the best anywhere to be found. The presentation of population materials follows the newer demographic orientation and, *mirabile dictu*, is sociologically relevant. Outstanding is the treatment of kinship. So far as this reader is concerned the incisive paragraphs on the relation of the symbolic elements of the family to the family's functions are worth the price of admission. One hopes they will have some effect on the vapid optimism that masquerades under the cloak of scientific detachment and so largely prevents a serious approach to the massive problem in our society of the relation of psychological incentives to social structure and function. The chapter on religion is the best I have seen in any introductory sociological work. It, too, is *sociologically* relevant.

This book is obviously no labor of mere expediency; nor does one sense, as in so many texts, the figure of a publisher at the author's elbow. The writing is clear and the content is sufficiently advanced to give both the student and the instructor an intellectual workout. That is to say, it is a *college* text-book.

There are certain critical points I would raise about this no less than other recent volumes in the field. Professor Davis is at his best where he is clarifying problems of order and structure which were long buried under categories of change. He is weakest, I think, where he deals either explicitly or implicitly with the problem of change. This is to say that although I find admirable his functionalist insights into the nature of interpersonal relations, I do not believe that current premises of functionalism can be made to serve the demands of the problem of change. Not at least without subscribing to some inscrutable dialectic or *vis a tergo*.

This reviewer deplors the increasing tendency to rely for illustrative or comparative purposes upon ethnological materials. Professor Davis avoids most of the distorting practice of ethnographic table-hopping in his treatment of institutions, but one cannot help thinking that he would have communicated far more of the dynamic aspects of institutions, and perhaps come closer to the essentials of the problem of change, had he drawn less frequently upon ethnological snapshots. Surely one may find illustrative, if not methodological, inspiration in materials which have *historical* as well as taxonomic relation to contemporary Western problems. It is not narration that is desired primarily. Rather it is a dynamic view of the present as historically stratified, so to speak, and dominated by inter-institutional *conflicts* which can be understood only by reference to their sources in modern history.

ROBERT A. NISBET

University of California, Berkeley

✓ *American Community Behavior: An Analysis of Problems Confronting American Communities Today.* By JESSIE BERNARD. New York: The Dryden Press, 1949. xvi, 688 pp. \$4.50.

The subtitle of the book is much more indicative of the content than the main title since the focus is chiefly upon national problems with the local community brought in from time to time as a stage setting. The work might well have been called "Competition and Conflict in American Society," for it describes in the clearest possible manner for introductory students the interplay and clash of group actions, creeds, and diverse cultural values in American life.

Of the thirty chapters in the book, six deal with the nature of the community and the types of community behavior (organizations, conflicts and competition); six with competitive behavior; nine with conflict behavior; four with disorganization and dissociation; four with the influence of personality on community life and the control of community behavior; and the concluding chapter with competition, conflict, and organization in the World Community.

The theoretical framework of this book deserves special mention since Dr. Bernard attempts consistently to select and analyze problems with reference to it. As she sees it, there are three fundamental processes: organization (including cooperation), competition, and conflict. Organization as structure consists of sets

of rules or norms; as process it is the rule-making, rule-enforcing phase of society which can be divided into the economic, the social, and the political aspects. Competition, a phenomenon of scarcity, exists when two or more people want the same thing. Conflict develops when two or more people want different but mutually incompatible things.

A useful schematic device is the conflict or accommodation continuum which consists of the stages of elimination, exploitation, equilibrium, coalescence, and assimilation. This continuum is applied to different types of conflict and corresponding stages are mentioned. For example, in political conflict revolution is a form of elimination, propaganda of exploitation, parliamentary debate of equilibrium, compromise of coalescence, and agreement of assimilation.

The author distinguishes between customs, mores, and conventions, which tell how we must *act*; and traditions, creeds, values, ideals, and standards, which tell us how we must *think* and *feel*. Tradition is the subjective side of custom; creeds organize the inner life of people; values (things the community considers good), ideals (systematic formulations of values), and standards (ideals or values stated quantitatively) are analogous in the realm of inner behavior to the mores in overt behavior.

The discussion in the book is limited to problems violating American ideals, partially listed as belief in the individual, democracy, freedom, and equality. When any ordinary situation is seen against such a set of ideals we are apt to have a "problem," since only in some imagined utopia would we find accord between achievements and such professed goals. There is advantage, however, in having a definite frame of reference for the analysis of these problems, especially when they are so diverse as to include those which we might characterize as *economic* (ecological, competition in the market, competition for jobs, exploitation of consumers, buyer-seller and labor-management conflict), *social* (competition for status, survival, mates, and prestige; Negro-White, denominational, Jew and non-Jew, and other minority-group conflict), and *political* (electioneering and campaigning, competition within parties, etc., and conflict within and outside legislative assemblies).

The processual rather than the topical approach, however, has one disadvantage. It tends occasionally to break up the unity of the presentation. For instance, Catholic-Protestant differences are discussed in three places: under

competition (Chapter 12), culture conflict (Chapter 18), and political conflict (Chapter 21).

Dr. Bernard has given us a useful concept of dissociation, admittedly borrowed from abnormal psychology, to describe the split-personality many communities seem to have. Disorganization describes the breakdown of the rules, whereas dissociation is the institutionalization of disorganization.

In conclusion one can only pay tribute to the competent way in which Dr. Bernard has tackled one major problem after another. At all times the treatment is fair and restrained, free from dogmatism and moralizing. Any reader will find this a well-written, stimulating book, and one of the best possible references for competition and conflict which must be handled more effectively if the American creed is to be increasingly realized.

IRWIN T. SANDERS

University of Kentucky

*White Collar Crime.* By EDWIN H. SUTHERLAND.  
New York: The Dryden Press, 1949. x, 272 pp. \$3.00.

Criminology has suffered from many faults but the following three have loomed large enough to bring them to mind when reviewing a work in this field: first, definition of the field has invariably been left to non-scientists, usually lawyers and policemen, occasionally physicians and philosophers; second, the study—explicitly often, implicitly in almost all other cases—has been oriented to the application of reforms; third, the significance of the subject would seem to be judged by the amount of money or horror involved—above all, the material must be “interesting.” That criminology as a science is still in short pants—indeed, that these may still hide much-needed diapers—can hardly be doubted.

That Sutherland challenges a part of one of these faults and gives at least lip-service to the challenge of another makes his newest book one of the few significant contributions to this field in the past decade.

The great challenge in Sutherland's *White Collar Crime* lies in his daring to call criminal a phenomenon which neither the Chicago Police Department nor the Federal Bureau of Investigation of the Attorney General's Department list under that heading. This is as daring as a medieval philosopher discarding Aristotle and the Church Fathers. It is the more shocking because

Sutherland is the unquestioned dean of criminology in this country (with apologies to J. Edgar Hoover, Al Capp, and some of our more or less literary wardens). To readers of the *Review* who have not delved into the last 15 or 20 texts in criminology, or the recent journalistic wanderings of certain psychoanalysts along the criminal path, it should be pointed out that criminology has been, as it were, decreed to remain within the confines of what the Federal Bureau of Investigation has called Class I Crimes. Administrative efficiency reports and historical tongue-clicking can be presented in relation to police and penal institutions, although these are not held to be “good form” if the Federal services are involved.

Dr. Sutherland takes great pains to show that the phenomena he describes are the business of *another* branch of the Attorney General's Department, were once called crime, and in some instances did provoke the Chicago or even other police departments to some action; but however apologetically it may have been done, he has challenged the arbiters of the alleged science of criminology. This is not to imply that the social scientists are suggested as being the competent or proper persons to define what it is they are studying. Very carefully indeed does Sutherland point out that he is acting within the limits defined for him by those rigorous super-scientists of culture and personality, the legislators, and the lawyers. There may be variation in *White Collar Crime*, but no mutation.

The limitation of criminology to the Class I phenomena of the FBI (big, horrible crimes) is maintained analogically by Sutherland in that he covers only the “felony-like” activities of the very biggest white-collar criminals. Just as felony constitutes about 10 per cent or less of all recorded crime (and one would presume a much, much smaller percentage of recorded and unrecorded crime combined), perhaps it would be reasonable to presume that the phenomena described by Sutherland form but a tiny percentage of the behavior of the general type selected for analysis.

Perhaps it should be stated, for those untried in this field, that white-collar crime not only leaves out the overwhelming mass of behavior usually called crime, but also has little or nothing to do with those generally referred to as being in the white-collar category. White-collar refers to corporations or owners and executives; crime means felony. For the uniniti-

ate, a proper subtitle would be "Corporate Felony." By restricting the material to corporate felony the author has kept his work within the classic fold. It is legally correct and also "interesting"; in fact, it may even be damned on the grounds that it is socialistic, communistic, irreverent to the ideal of private enterprise, and, at times, even in bad taste. This is not to say that the book presents exciting reading. Sutherland is not noted for light or suspenseful writing. Those familiar with his works may be surprised to discover a quite humorous remark, perhaps it could be called a joke, in the final chapter. Naturally, it is carefully explained in the following sentences.

Sutherland states that his formal purpose is not to suggest reforms or to indicate alternatives. Nor does he do so in any explicit fashion. The general impression of the book for many, however, will be that it is an attack on malefactors of great wealth. It does not appear that this was the author's conscious intention, but restriction of his subject to the very bad (i.e. felonious) actions of only the biggest corporations has its natural consequences. An analogous study might be one labeled *The Broken Family*, which concerned itself exclusively with divorce actions among millionaires. The coloring thus brought on in the present case, however, is explained by the character of criminology; Sutherland is neither sensation-seeker nor socialist. Nevertheless, that our largest corporations are proven the perfect examples of "recidivists" may evoke a lifted eyebrow or two.

Although *White Collar Crime* is thus restricted and unbalanced in its treatment from a broad social science viewpoint, it should be emphasized that Sutherland is leading the way out of a confined and unbalanced field. In his earlier treatment of professional crime he brought the social science viewpoint into criminology, tearing the attention of the devotees at least momentarily from endless correlations of police data, from geometric and geographic torturings of human and group behavior, from the dull, repetitive bathos of social case histories, from undisciplined intellectual pickings of insightful analysts, and even from Bostonian levitation of Lombroso. This time Sutherland has even challenged the sacred data of the fraternity. It is not surprising that two of the last generation's more refreshing authors in penology and the analysis of criminal law, Clemmer and Hall, also spent some time in Indiana.

The weaknesses of *White Collar Crime* are the weaknesses of criminology. Sutherland reflects those weaknesses, but more than anyone else he indicates that criminology, though not itself a science, can perhaps become, in fact through his work may be already becoming, scientific.

SELDEN D. BACON

Yale University

*The Chicago-Cook County Health Survey.* Conducted by the UNITED STATES PUBLIC HEALTH SERVICE. New York: Columbia University Press, 1949. xlviii, 1317 pp. \$15.00.

According to the book jacket, the mayor of Chicago and the president of the Board of Commissioners of Cook County requested the United States Public Health Service to undertake this study. Dr. Knox E. Miller, Medical Director, U.S.P.H.S., gave official leadership to the survey which began in 1946 and was completed the following year. His *Preface*, and the *Foreword* by the then Surgeon General of the Service, Dr. Thomas Parran, appraise the survey as outstanding for its scope and for "the complexity of the health problems involved." What they could hardly say your reviewer is happy to avow: if even a part of the substantial action indicated is taken on the basis of this diagnostic research, the residents of Chicago and Cook County will be everlastingly indebted, and should be eternally grateful, to the men and women who took part in the Chicago-Cook County Health Survey. The competence, integrity, courage and vision of these professional people shows forth in every one of the book's 52 chapters. And if the content of this volume, in spite of its forbidding size and cost, receives even a fraction of the distribution and careful attention it deserves, the whole of metropolitan mankind will be the richer. For though only the metropolitan Chicago area is here under the microscope, the observations and analysis yield facts, commentary, and recommendations which, along with the standards employed, inevitably have wider significance. In the field of health services, praises be, what was good for our fathers is not good enough for us.

In a brief review it is impossible to do justice to the range or wealth of material in this work. Let me cite a few data to show why. The report runs close to a half million words. There are 173 tables, 16 figures (but, unfortunately, no map delineating the "Community Areas" often

referred to, e.g. pp. 502-503), 16 pages of illustrations, 24 pages of Appendices bearing on methodology, and a useful 47-page index. Part I, "Environmental Sanitation," includes treatments of such subjects as water, sewerage, and water pollution, swimming pools, refuse collection and disposal, smoke and dust control, food control, mosquito control, rat and rodent control, sanitary inspection services, and housing. Part II, "Preventive Medicine," includes, for example, public health statistics, TB and VD control, mental hygiene, maternal, child, school, and industrial health services, public health nursing, dental needs and facilities, health education, and personnel policies and practices. Part III, "Facilities and Services for Medical Care," treats such topics as physicians, hospitals, clinics, ambulance services, nursing service in hospitals, medical social services, and care of the chronically ill.

Personnel involved included an Advisory Committee of 15, six Technical Consultant Committees totalling 54, and a professional staff of 54 representing the full gamut of health services. Twenty-four of the 27 persons named as full or joint authors of one or more chapters are identified as U.S.P.H.S. professionals. Nineteen chapters are written by 7 sanitary engineers, 19 more by 6 M.D.'s, 5 by 4 sanitarians, 5 in whole or in part by 3 R.N.'s, and the remainder by D.D.S.'s, a bacteriologist, a health educator, a medical social worker, a personnel methods analyst, and a medical assistance consultant. It does seem a bit odd that the Ph.D. label, frequently regarded as a mark of professional competence, appears among neither staff nor consultants, some of whom, such as Louis Wirth, are definitely entitled to it.

Why do I devote so much space to personnel? Because, as Dr. Miller so well and concisely puts it, "The problem boils down to one simple factor—personnel, honestly selected, adequately trained, and endowed with proper authority to act, or, in other words a sound personnel policy. No program so equipped can fail to succeed" (p. xxi). In a previous paragraph he had unblushingly identified the root of the Chicago-Cook County health services problem by the term I choose to italicize: "The one and only unit of measurement was the health need of the human being and the community of which he is a part, regardless of politics, religion, race, or any other consideration."

Where bouquets are deserved, as for example in the cases of VD control (p. 531), and the care of premature infants (pp. 608-609), they are bestowed with discriminating precision. But in chapter after chapter Chicago-Cook County health services are shown to be appallingly inadequate when measured in terms of recent, objective, quantitative, generally accepted professional standards. For instance, among the "approximately seventeen thousand permanent or fixed eating and drinking establishments" a representative sample of 200 were studied. "The combined sanitation rating of these 200 . . . was 31.5 points out of a possible 100" (pp. 257-258). Incredibly, when similar methods were applied to a representative sample of Chicago hospitals the comparable score was lower still (p. 261). Such jeopardy of residents' and visitors' health and safety is due, it seems, more to the evils of the patronage system applied to health services personnel than to any other single factor (cf. pp. 925-928). And this reviewer, for one, will hereafter drink the water of Chicago, to speak symbolically only in part, with fear in his heart until such time as its guardians and their brothers in health services can be given the clean bill of health which this survey so pointedly fails to do.

EDGAR A. SCHULER

Wayne University

*Negroes in American Society.* By MAURICE R. DAVIE. New York: McGraw-Hill Book Company, 1949. ix, 542 pp. \$6.00 (Text edition, \$4.50).

In view of the large number of courses on the Negro which are given in American colleges and universities, the scarcity of good text-books on the subject is somewhat surprising. Myrdal's *An American Dilemma*, a monumental work, has probably been used extensively as a text, but no doubt many a teacher has wished for a more compact and more "sociological" book. The situation has recently been remedied to a great extent with the appearance of two excellent books: E. Franklin Frazier's *The Negro in the United States*, and Professor Davie's work here noted.

In introducing the present book the author states that his general point of view is "developmental." "Within the framework of cultural history, the expanding role of the Negro is considered from a long-range as well as a cross-sectional standpoint." He explains further the nature of the work by saying, "Designed

primarily as a textbook giving a factual, scientific analysis rather than presenting a personal opinion or program, this volume is necessarily eclectic in character."

After a brief but well-balanced chapter on the importation of Negroes from Africa, the author presents a longer chapter on slavery in the United States which is an excellent condensation of the social history of slavery. The third chapter traces the transition from slavery to tenancy, while the fourth deals with the growth of industry and migration to the city. From here on the orientation is less historical and more in terms of problems, trends, and points of conflict, although the author fills in briefly the historical background of most of his topics.

Subsequent chapters deal, in order, with the following subjects: economic status, education, religion, the press, the family, housing, health, criminality, suffrage, segregation and discrimination, the Negro in wartime, lynchings and race riots, the doctrine of racial inferiority, race mixture and intermarriage, class and caste, the Negro's reaction to his status, and the future of the Negro (two chapters). In each case the author tries to present "factual" material and the findings of various authorities, with a minimum of what he refers to in his preface as "technical language" and "jargon."

If one is looking for a book on Negro-white relations cast in any of the more or less accepted theoretical frameworks now current in American sociology, one will not be satisfied with *Negroes in American Society*. It has no particular framework; attempts no high-level generalizations; and makes no pretense of contributing to sociological theory. Davie meant to do an eclectic job and has done it quite well, therefore we will not quarrel with him. However, we might point out that "jargon" is a relative matter and that "good jargon" is precisely what any science must develop sooner or later. Incidentally, Davie uses quite a bit of it. One of his best chapters is the one on the Negro's reaction to his status; and here he uses to good advantage such concepts as acceptance, resentment, avoidance, overcompensation, and aggression. Aside from this we have only one minor criticism, namely, a tendency on the part of the author to overdo the use of anecdotal and unusual items. These enliven the reader's interest, it is true, but to some readers they may be symbols of bias or stereotype.

For the general reader, as well as for teachers

and students who prefer an eclectic approach or like to supply their own theories, *Negroes in American Society* will be an exceedingly useful book. Each chapter has a well-selected, annotated bibliography, and there are detailed subject and author indexes. Footnotes are eliminated, yet numerous quotations are used and their sources given in the text proper.

GUY B. JOHNSON

University of North Carolina

*Jews in Transition.* By ALBERT I. GORDON, Minneapolis: University of Minnesota Press, 1949. xviii, 331 pp. \$4.00.

The objective of this book is to depict the changing mode of life in the Jewish community of Minneapolis, consisting of about 20,000 persons.

After an account of the genesis of the Jewish settlement, the author describes the prevailing patterns of life of the Jews, noting changes that have taken place in the approximately three-quarters of a century of the community's existence in this midwestern city. Among the institutions considered are the synagogue, education, and the home. Close to a third of the book is devoted to biographical sketches of several first- and second-generation individuals, the purpose of which is to illustrate the changed cultural patterns of the group.

Dr. Gordon, who has served a number of years as a rabbi in the community, gathered his data by means of interviews with representative members of the community and from institutional reports and local publications. His chief reliance, however, seems to be upon personal observations as a member of the community. The work, therefore, is chiefly impressionistic.

The author centers his attention on the religious aspects of the Jewish community: of the seven chapters dealing with life in the community, five are devoted to religious beliefs and practices. The economic aspect is dismissed with a few general facts regarding the occupational pattern obtained from published local surveys. Demographic data are almost completely lacking. The chapters on the synagogue, education, and the family, too, include little reliable statistical material, approximations, based on surmises, being the rule.

With respect to the present-day religious and cultural life of the community, Dr. Gordon finds that many of the beliefs, practices, and folkways that characterized the group in the

past are either in the process of disintegration or have already ceased to exist. This is true of the observance of the Sabbath, daily prayer, regular attendance at the synagogue, and many other practices. The author estimates that at least 95 per cent of the members of the community no longer observe the important custom of daily prayer; and synagogues are filled only during the three High Holy Days. Even among the Orthodox, disregard, in various degrees, of religious practices is widespread. Only in periods of crisis in the life of an individual, such as birth, marriages, and death, are traditions adhered to, but even then in modified form. Although he succeeded in obtaining only a little information on intermarriage, the author believes that it is increasing in the community.

The work is almost entirely descriptive. Attempts at interpretation and evaluation seem to be motivated more by wishful thinking than by what the author has found, and the conclusions hardly square with the observed facts. After pointing out the widespread abandonment by the Jews of the community of beliefs and practices that gave Jewish culture its distinct character and that constituted its *raison d'être*, the author finds that they have returned to or revived practices which give new meaning to their life as Jews. As an example of this the author cites the practice of lighting the Sabbath candles on Friday nights which he believes has increased among Jewish housewives. Another instance is the *bar mitzvah* ceremony which he now finds "far more elaborate and meaningful" than it was in the past. That it is more elaborate will be readily admitted, but that it is more meaningful will be vehemently disputed by many. The fact is that American Jews have endowed the ceremony with an importance entirely out of keeping with that assigned to it by traditional Judaism; and, as performed by them at present, the ceremony is artificial and quite devoid of religious or cultural significance for either the individual involved or the community. The claim that the Jewish holidays are celebrated "with greater joy and understanding today" is also highly questionable.

The author finds that the Jews of the community are becoming indistinguishable from the non-Jewish residents of the city. "They have assumed," he writes, "not only the dress and mannerisms of their neighbors, but their practices as well." Nevertheless he believes that they will perpetuate themselves as a distinct

cultural and religious group. While he considers the "revitalized" and "more meaningful" practices mentioned above as indications of the vitality of the group, he seems to rely upon anti-Semitism as a force in its preservation. Were prejudice and discrimination against the Jews to disappear, he asserts, Jewish life would have little chance of survival. He sees, however, a positive force working for Jewish survival in America, namely, the influence of the state of Israel. While the view that anti-Semitism has been an important factor in maintaining Jewish identity is generally accepted, the belief that a revived Jewish state will have a revitalizing effect on Jewish life outside of Israel is merely conjectural. It would appear from Dr. Gordon's own analysis, however, that the perpetuation of Jewish group life in America will be more dependent upon external than internal forces.

The book is a social history rather than a sociological study of a community. Its pages are replete with references to local persons instrumental in the building of various institutions and with accounts of the chronological succession of the latter. It is, therefore, chiefly of local interest. Nevertheless, anyone unfamiliar with Jewish life in America will profit from reading it.

SAMUEL KOENIG

Brooklyn College

*Acculturation of the Chinese in the United States: A Philadelphia Study* by DAVID TE-CHAO CHENG: Foochow, China: Fukien Christian University Press, 1948, x, 280 pp.

This volume, published in China and on sale for \$2.50 at the University of Pennsylvania's Sociology Department, is a thorough treatment of a Chinatown in America's third largest city. Much of Part One, "Backgrounds of the Chinese in Philadelphia," is a repetition of history and statistics secured from secondary sources. Part Two, "Chinese Institutional Life in the United States," contains a more systematic treatment than has yet been written of business practices, such as the various types of apprenticeship relations in laundries.

The data pertaining to Philadelphia derive from the author's first-hand observation as a participant observer. However, it is regrettable that his chapters on "Family Life" and "How the Chinese Educate Their Young" should be so heavily tinged with ancient Confucianisms (not even suitable for modern China), while

the dynamic methods employed in Philadelphia for the control of children, and variations in conformity among siblings of a given family, are tersely treated. We learn how the children compare scholastically with their Caucasian peers, how they rate with their teachers, and perform at language school or churches, but the picture is "too perfect" and descriptive.

The author consistently maintains that the modernization of China has greater influence upon the Chinese and Americans of Chinese descent in Philadelphia than the social milieu in which they reside. Undue emphasis is placed upon "old China," therefore; and when corroboration is needed, sources pertaining to China before the Revolution of 1911 and those about the Chinese in the United States before 1940 are quoted. Recent works of Chinese sociologists are given scant mention: for example, Homer C. Loh's doctoral dissertation (unpublished) *Americans of Chinese Descent in Philadelphia*, which incidentally contains much of the same material as the volume under review, is slighted. Both were done at approximately the same time.

A work on acculturation of a minority group should contain hypotheses to be tested. None appears in Part Three, "Analysis of Acculturation," and the data gathered are fitted to prevailing theories. In predicting the course of future acculturation within the 1945 framework of American society, the analysis is based upon the position China occupies in the world of nations as well as upon the existing legal and social controls exerted by the larger society here which may retard the process. The author assumes that future generations of Chinese in Philadelphia will retain the same social organization of the older immigrants; he does not consider the fact that third generation Chinese may already have escaped the ghetto walls. Surely this would affect the present social organization as well as the course of acculturation. Old-world institutions will lose membership, once the foreign-born group diminishes; wider occupational distribution will take its toll.

The volume was completed in 1946, published in 1948. In the interim, studies about the Chinese in other parts of the country have appeared. This sets the work at a temporal disadvantage, for Chinese-American sociologists have made additional contributions and have made more intensive comparisons. Nevertheless, the volume is an addition to knowledge about

the Chinese in the United States and especially in Philadelphia. It is clearly written, contains many picturesque ideograms and charts, and has sufficient statistical material to add to its worth. For those who follow the process of Chinese-American acculturation and of minority acculturation generally, this is required reading.

ROSE HUM LEE

Roosevelt College

*American Immigration Policy: A Reappraisal.* Edited by WILLIAM S. BERNARD, CAROLYN ZELNY, and HENRY MILLER. New York: Harper & Brothers, 1950. xx, 341 pp. \$4.00.

The introduction states that this work is based on investigations conducted by the National Committee on Immigration Policy, and that it attempts to "give the facts in such a way that the reader may form his own conclusions independently of those expressed in this volume" (p. xix). The tone of the book, however, is more accurately indicated several lines below in the same paragraph where our immigration legislation is described as having been passed in an environment of "myth, rationalizations, prejudices, and false stereotypes." Elsewhere in the first few pages the legislation is characterized as anachronistic, reactionary, a product of racist propaganda, isolationism, etc. Whether or not this constitutes giving the facts, it does not help the reader to form his own independent judgment.

Examination of the first two chapters, which deal with the historical background of immigration legislation and with the quota system and its effects, reveals errors of fact and some lack of acquaintance with the history of immigration legislation. The 1864 act that, among other things, permitted immigrants to enter into contracts to repay passage money is called the Contract Labor Law (p. 6), although that term is customarily applied to the Act of February 26, 1885 and subsequent legislation to prohibit the immigration of aliens under contract or agreement to perform labor in the United States. The repeal of the 1864 act in 1868 is correctly noted, but no mention is made of the later contract labor laws that were a prominent part of immigration legislation until well into the present century and that are still in force. To the student of immigration it will come as a surprise to read that in the 1890's "The trade unions soon secured the repeal of the Contract-Labor Laws" (p. 10). Turning a page, one reads that the exclusion of Chinese was

made permanent in 1892 (p. 12). Another page, and one reads that Taft vetoed a literacy test bill in 1909 (p. 14).

These errors are for the most part minor and are not important to the main purpose of the book except as they reflect on the quality of the work. But there are other places more essential to the purpose of the book where the reader must be on his guard. Two instances from the chapters on the economic effects of immigration, Chapters 3 and 4, will be sufficient.

A writer chiefly notable for his strong opposition to the restrictionist trend of immigration legislation following the first world war is introduced to the reader as a "noted economist" (p. 59). Inquiry of a half dozen economists indicates that this is at best an exaggeration. Here and elsewhere one gets the impression that favorable opinions and like-minded writers are cited with approval, and that contrary opinions are omitted or condemned.

The same chapters draw on the work of economists of established reputation, such as Jerome, whose *Migration and Business Cycles* is quite properly mentioned as being "one of the most scholarly studies in the field." Of Jerome it is reported that "He found that immigration, even in the period before legislative restriction, had played no important role in intensifying unemployment conditions" (p. 85). Perhaps what is meant here is that Jerome found that immigration tended to diminish during periods of unemployment in the United States, but that is not quite the same thing. What Jerome actually wrote concerning the effect of immigration on unemployment conditions, if one uses the subject index of his book, is that "It would appear that immigration, in the year before the war, contributed materially to the growing volume of unemployment . . .," and that (concerning periods of depression and unemployment) ". . . in many parts of such periods there was a substantial excess of arriving over departing aliens, with a probable aggravation of the unemployment situation. The burden of such unemployment probably falls in part on the newly-arrived immigrants and in part on resident workers who are replaced by immigrants willing to work for lower wages" (Jerome, pp. 120, 122). Although this reviewer hesitates to accept Jerome's conclusions and inclines toward the dissenting opinion given in a footnote on page 120 of his book, nevertheless it should be noted that Jerome's position on the effect of immigration on unemployment is

the opposite of that attributed to him in the reference to his work.

For those who read further there are chapters on immigrant adjustment, the significance of immigration for American population trends, and recommendations concerning the immigration policy of the United States. In contrast to the imperfections and overzealousness of the early chapters, the recommendations contained in the final chapter appear constructive and well considered. With them this reviewer, whose views on the subject are already on record, is in substantial agreement: the immigration laws have become partly out of date and in need of revision, there is call for reconsideration of many questions of policy, and liberalization would bring the laws in better accord with our present day thinking and international responsibilities. But it is to be feared that this volume rather than serving does disservice to the cause of modernization and liberalization of the immigration laws, for it must suggest to its readers that the case for such action is indeed weak if it is necessary to resort to such partial and biased presentation of the evidence. To express a personal opinion:—it isn't necessary.

E. P. HUTCHINSON

University of Pennsylvania

*Freedom and Welfare in the Caribbean: A Colonial Dilemma.* By ANNETTE BAKER FOX. New York: Harcourt, Brace and Company, 1949. x, 272 pp. \$3.50.

This study deals with major problems in the political, social, and economic status of the West Indian colonies of Britain (emphasis on Jamaica, the Barbados, Trinidad) and the United States (Puerto Rico and the Virgin Islands). Its purpose is to provide a foundation for policies aimed toward diminishing two major sources of colonial friction: extent of self government, and poverty. The larger topic of international expediency in problems of colonialism, as it is manifested in the Caribbean, is also treated. Some attention is given to the Caribbean Commission, an advisory board now attempting to clarify and coordinate socio-economic programs throughout the Caribbean. Possible constitutional changes and redistribution of political power (including autonomy) are discussed and will throw light upon the political involvement between "mother country" and dependent colony. Welfare proposals and other now-operating programs in health, land, agriculture, edu-

cation, taxation, etc., are also analyzed. The difficult problem of finance as related to economic development receives a practical analysis in a separate chapter. To this reviewer, the most valuable chapter is the first. It is a needed, comprehensive statement of the major problems of Caribbean colonial administration as such rule affects all aspects of life in the area.

Many previous authors have not adequately integrated the important topic of Dependency vs. Self-government into their discussions of Caribbean welfare proposals. Readers will find here a sensitive and informed analysis of this subject. This and other analyses of *specific* welfare proposals are far from superficial. But it appears to the reviewer that some proposals analyzed are themselves only superficial as welfare programs. This is not always obvious from the author's treatment. We question the dismissal of military expenditures from considerations of welfare (p. 105) on the grounds that they "have been made without reference to specific colonial policies . . ." Military expenditures *particularly* demonstrate specific American and British "policy" in the Caribbean. Moreover, they affect other expenditures, including those for welfare purposes. In addition, as the author later points out, military installations are accompanied by "disruptions in the social life of the community." This should be a major concern for freedom and welfare.

It is stated (p. 163) that "the establishment of the West Indian University should provide further foundation for closer union of the West Indies." We think this deduction not wholly warranted. It *could* also forward further separation and nationalism, particularly since educational programs have not been unified to the satisfaction of leading Caribbean interests. We also think unwarranted the statement (p. 211) that outside-supported research programs now functioning in the Caribbean will not find "their interest greatly altered" should more autonomy be granted the colonies.

Class divisions in the Caribbean receive relatively slight treatment, although the author points out that remedial welfare programs now contemplated will probably reinforce them. This seems of major importance to welfare planning in *colonies*. These points are perhaps of minor concern in terms of the book's total contribution: the demonstration of the multiplicity of factors affecting Caribbean colonial administration.

MAXINE W. GORDON

Argonne National Laboratories

*Slavonic Encyclopaedia*. Edited by JOSEPH S. ROUCEK. New York: Philosophical Library, 1949. xi, 1445 pp. \$18.50.

The appearance of this timely publication should go a long way towards filling the gaps in our knowledge of the Slavic world and set the latter in a better perspective. One hundred and twenty-five persons have collaborated and a board of some thirty persons worked on the editing. Comprising some 1445 pages, it covers a wide range of topics—including historical persons and places, great events as well as important figures in the arts, literature, and learning. Perhaps its most signal contribution consists in a large number of articles of a general nature covering such subjects as the peasants' social institutions, the family, the position of women, social legislation, social planning, social structure, local government, trade unions, and the *Zadruga*. Science and learning also receive appropriate attention in articles on education and educational theory, philosophy, law, sociology, medicine, history, historiography.

We will not quarrel with the choice of subjects to be covered since this is a personal matter. The very large number of contributors, however, necessarily involves great unevenness of quality; some of the articles display a high standard of scholarship while others give evidence of only the most casual knowledge of the subject. But one general drawback perhaps calls for mention. There is no uniform rule for a bibliography at the end of the article. Some writers include a short one in the text, but most of the contributors omit this feature. The editors probably had their own good reasons for this.

While the whole book has for its general aim the dissemination of correct information on the Slavs and their culture, this subject is dealt with specifically in certain articles which perhaps are of most absorbing interest. The origins of the Slavic languages and the Slavic peoples, as dealt with by Griffith Taylor, is one of these fields. Special articles on Slavic folk dances, folklore, and music give us some feel for the peculiar folkways of the Slavs. The discussion of the Slavic languages (Noyes), the Cyrillic alphabet (Manning), transliteration of the Cyrillic alphabet (Piotrowska) set up the technical problem of language. But perhaps the significance of the whole book is concentrated in the articles dealing with the Slavs, their history, Pan-Slavism, Slavophilism, the

Orthodox Church—all of which topics involve not only the history of the Slavs and their civilization but their destiny as a people in relation with the rest of the world.

The article "Misconceptions about Slavic Europe" (for the Russian part of which the general editor accepts responsibility) does not seem to be on solid ground in ascribing some of these misconceptions to the influence of German scholars. After all, the Germans probably knew more about Slavic Europe than any non-Slavic people; and as Edon E. Bergel points out in his "Slavic influence on German literature," what anti-Slavic feeling existed among the Germans was merely among a small and uninfluential element of the population. The causes of the hostility and distrust lie deeper: the clash of creeds and of national interests; the long subjection of many Slavs to foreign yoke; the fear of their vast numbers should they ever master the techniques and science of the Western world were largely their inspiration. But it is on ignorance that they have been nourished. This last fact is the best justification for such publications as the book under review.

STUART R. TOMPKINS

University of Oklahoma

*Sykewar: Psychological Warfare against Germany, D-Day to V-E Day.* by DANIEL LERNER. New York: George W. Stewart, Publisher, Inc., 1949. xviii, 463 pp. \$6.50.

This is the best account of "white" psychological warfare against Germany yet produced anywhere. Moreover, it is the only good account of the work of the Psychological Warfare Division of SHAEF and, in particular, of the Publicity and Psychological Warfare unit of Twelfth Army Group. It is heavily documented, replete with fine reproductions of leaflets and similar material, and contains all the important written military directives that were supposed to govern British and American propaganda operations. Further, it provides a list of personnel engaged in both white and black work at SHAEF and at Twelfth Army Group headquarters (but there only). Finally, the writer is clearly earnest, conscientious, and thorough. Within the scope of less than five hundred pages he has produced a remarkably fine book worthy of the attention of military men, diplomats, historians, political scientists, social psychologists, and sociologists everywhere.

The book is so good that it should go into

successive editions. If and when it does, the reviewer suggests that certain additions and corrections be made. Some of these will be difficult and perhaps, given the present international situation, inadvisable or, because of security restrictions, impossible. However this may be, mention should be made of a few.

(1) The term "sykewar" causes a little queasiness, but it is not as likely to cause major stomach upsets as is "sykewarrior," and should probably be retained, although it must be granted that it is an unfortunate one. The British consistently used "political warfare," and they thus avoided the handicap noted by the writer himself (p. 91): "... psychological warfare ... 'brings to mind the picture of unsoldierly civilians, most of them needing haircuts, engaged in hypnotizing the enemy.'" If sykewar is retained, some way of differentiating more accurately between major psychological warfare units should be found. As it is, the author relegates a crucial distinction to a footnote (p. 9): "Sykewar upper-case is used throughout as an abbreviation for the Psychological Warfare Division under SHAEF, whose propaganda campaign against Germany is the subject of this book; sykewar lower-case is used to indicate other propaganda organizations operating against Germany (e.g. OSS, OWI, BBC) and to designate psychological warfare in general." Few readers will carry this in mind, even if they read the obscure footnote. Further, the typographical distinction cannot be consistently maintained, for full-capital chapter headings, capitalization at the beginning of sentences, and other printing conventions wreak havoc. The uninformed reader might well arrive at the conclusion that the units with which Dr. Lerner was most closely identified, and which he calls Sykewar (upper-case) ran the whole show. They didn't and couldn't.

(2) General McClure's warning should be more explicitly heeded (p. 305): "It is obvious that *successful* black propaganda has not been published and should not be. Therefore, conclusions drawn without first-hand knowledge are probably based on 'gray' propaganda, concerning which a considerable amount has been written." And E. G. Kingsley's comment should be taken to heart (p. 319): "I don't think the effectiveness of Sykewar can be studied with an open mind by making the rounds of former PWD characters. *The real answer to the question lies in Germany*" (italics the reviewer's). The reviewer was delegated by OSS to get that

answer in Germany; he got one that seemed to him—and to his aide, Edmund Reiss, whose name is already known to Dr. Lerner—as good as could be got from a necessarily small sample of black listeners. Alas, the report embodying that answer is "classified." But errors of omission and commission in the evaluation of both white and black may serve a useful purpose. As General McClure puts it in his foreword (p. xviii): "The conclusions and deductions from the responses to the author's questionnaire should stimulate controversial discussion of the organizational structure, policy relationship, and personnel problems. *It may cause more and more official source material to become available*" (italics the reviewer's).

(3) There should be few or no invidious references, by name at least, to the personnel of other agencies. To call Allen W. Dulles' unimpeachable and thoroughly documented book, *Germany's Underground*, a "political tract" (p. 127), and to charge him with "petulant naïveté" (p. 23) because he disagreed with the publicity given to the slogan of Unconditional Surrender, is to make the judicious grieve—and there are several other such exhibitions of pettiness. Dr. Lerner, in many ways World War II is not yet over. Why should Americans fight each other by meanly impugning motives?

(4) It is possible that there was not time to introduce Winston Churchill's most recent comments on the policy of Unconditional Surrender, but there will be in later editions. The issues are too grave to allow the slightest suspicion to arise that parts of Chapters I and II represent an irrelevant defense of a Roosevelt decision, more especially as section 4 of Chapter XI and other passages properly allude to doubts as to the wisdom of that decision. "Even Jove may nod"—and the reviewer uses this proverb as one who consistently upheld Roosevelt policies from the time of the "quarantine the aggressors" speech until the news of Yalta.

(5) More open-mindedness and willingness to examine the evidence should be shown with regard to the matter of German resistance. An arbitrary definition (p. 154) should not be allowed to obscure the fact that well over five thousand Germans were killed by the Nazis because of the July 20th attack on Hitler, and the further fact that there was eminently successful resistance at Munich, to name no other center. And what accounts for the more than

two hundred thousand "Aryans" in concentration camps (a very conservative estimate) before the Nazis launched the war? It might be well to read and ponder Victor Gollancz's *In Darkest Germany and Our Threatened Values* when planning the next edition.

(6) In more technical vein, there should be greater discretion in the use of the terms white, gray, and black. To apply "gray" to *Soldatensender Calais*, later *Soldatensender West*, *angeschlossen an den deutschen Kurzwellensender Atlantik*, and one of the most demonstrably successful of all black stations, is little short of ludicrous. There seems to be a fateful confusion of the locality and veracity criteria, plus unwarranted identification with *Nachrichten für die Truppe*.

(7) Account should be taken of the fact that a number of the special operations listed on pages 258-262 did not, in actual practice, conform to the advance descriptions of those operations approved by PWD. In one case, of which the writer has intimate personal knowledge, the description submitted to and approved by PWD was *designedly* so vague, because loaded with ambiguous terms, that the approval virtually amounted to *carte blanche*. The particular OSS unit charged with certain black radio work had in previous weeks—even months—submitted highly detailed and unambiguous projects, all of which were disapproved. The unfortunate rivalries within and between propaganda organizations, quite properly castigated by Dr. Lerner at several points in his book, and for which he proposes a definite remedy (p. 345), were causing friction as usual. Consequently the ambiguous and seemingly innocuous project was substituted for the previous unambiguous ones, as above noted, and with approval unwarily given, the OSS "characters" went merrily "free-wheeling" on their way. (Incidentally, this free-wheeling project proved to be, in the reviewer's estimation as grounded on his post-V-E-Day survey in Germany, one of the most successful, by any standard, of all black operations.)

Enough of these minor points. Returning to the first paragraph, the reviewer wishes to underscore his conviction that Dr. Lerner has produced a remarkably fine book. Moreover, the publisher has given it a format worthy of its contents.

HOWARD BECKER

University of Wisconsin

*Rehearsal for Destruction: A Study of Political Anti-Semitism in Imperial Germany.* By PAUL MASSING. New York: Harper & Brothers, 1949. xviii, 341 pp. \$4.00.

In May 1944 the American Jewish Committee invited a group of American scholars of various backgrounds and disciplines to a conference on religious and racial prejudice. As one result of this conference a Department of Research was established to initiate fundamental studies on the phenomenon of prejudice and also to help in stimulating new studies. Three volumes have already appeared as a result of this first effort, whose emphasis stressed personal and psychological factors rather than social aspects of prejudice; the fourth volume, reviewed here, is the first of the series which is of immediate concern to the sociologist.

The title, *Rehearsal for Destruction*, indicates Massing's thesis that there is a direct connection between the anti-Semitism of Imperial Germany and the nightmarish horror which it assumed under Hitler. In fact, this purpose is made explicit in the author's preface where he states that his study deals with the historical forerunners in Imperial Germany of Nazi anti-Semitism. It is assumed that the analysis of German anti-Semitism—as a phenomenon of power, group privileges, and group antagonisms—will further the understanding of comparable prejudices elsewhere.

The study discloses that the implacable enemies of Jews were more often urban members of the better-educated classes than rural peoples of lesser schooling. "The most virulent anti-Semitism was spread by teachers, students, white collar workers, petty officials, the free professions, and all kinds of 'life-reform' movements. In contrast, conservative Junkers, peasants, and other rural inhabitants had no special love for Jews but their dislike was circumscribed. Attacks on Jews were often linked with attacks on Junkers and on Christianity."

In dealing with his problem, the author first analyzes anti-Semitism in Bismarck's Reich, where it was primarily a political tool cleverly exploited by Bismarck's enemies; in the second part of the book the more virulent and vicious form of radical anti-Semitism is investigated. The latter is the form to be considered as the predecessor of Nazism, for it contained most of the concepts which reappear later in the Nazi ideology. In order to complete his picture, Massing deals with the relations between im-

perialism and anti-Semitism and also determines the attitudes of socialist labor toward the prejudice with which his study deals.

Massing's competent and painstaking analysis of the imperial era is very successful: the reader clearly sees the intricate and slightly frightening jockeyings for power among quaint figures like Court Chaplain Stoecker, Otto Glagau, Otto Boeckel, and Hermann Ahlwardt, although these manipulations contain no indication of the tragedy to come. Perhaps it is a weakness of the analysis that it does not show clearly how so complete a reversal of nineteenth century European values could stem from such moderate beginnings. Perhaps the stimulus which loosed the forces of destruction came not from within Imperial Germany but resided in a wider cultural configuration.

To make such a wider interpretation would be a tempting task for which the present study offers valuable assistance. The conclusion to be drawn from Massing's analysis is that economic factors carry the greatest burden in the creation of bias and prejudice. Perhaps this would not hold true under all cultural patterns, but it certainly does under the prevailing pattern of the nineteenth century; and, with certain reservations, it remains valid today. There is an implicit warning in this study in its depiction of a rather moderate movement suddenly swelling to gigantic proportions. If this resulted largely from economic forces and factors, it is a matter to be pondered gravely. If, on the other hand, it derived from a purely inner development, we must conclude that the symptoms do not always betray the gravity of the disease.

The author of this competent work does not answer this question, which is indeed outside the framework of an analysis of anti-Semitism in Imperial Germany. He does, however, stimulate thought on this wider problem which, in its entirety, has not yet found a satisfactory answer.

BART LANDHEER

*University of Alabama*

*A Communist Party in Action: An Account of the Organization and Operations in France.* By A. ROSSI. New Haven: Yale University Press, 1949. xxiv, 301 pp. \$4.00.

In a climate of mounting fear of Communism, Rossi's study is welcome indeed, for it deals with this vital topic rationally and maturely. His work is not the only investigation

of French Communism—it was preceded by an official history of the Communist movement in the twenties, Ferrat's *Histoire du Parti Communiste Français* (1931), and it is followed by Gerard Walter's scholarly book bearing the same title (1948)—but it deserves our special attention since the author, who had played a role in the Communist movement until 1929, selected for analysis the crucial period from 1939 to 1941. These were the years when France was shaken to her foundations by her defeat; and when her Communist Party, by then a full-fledged totalitarian organization, reversed its policy over night. For in June, 1941, as a result of the Nazi-Soviet break, it had to turn from a "leftist" tactic of advocating a proletarian revolution against all imperialist powers to a "rightist" tactic of supporting a national war of liberation against the Nazi arch-enemy.

Rossi, who wrote his book back in 1942, uses published and unpublished primary party sources and presents an extremely detailed and readable story of the party organization and structure as well as of the legal and illegal, political and propagandistic methods used to translate into reality the strategy and tactics of the party. In discussing such topics as the "Committees of the People" and the "National Front," underground terroristic activities and the defense against repression, the press and personnel policies of the party, he furnishes us with a guide to party organization that should be of equal value to professional anti-Communists, Communist activists, and scholarly students of contemporary socio-political movements.

As a socialist humanist, however, Rossi is by no means satisfied with a Machiavellian exploration of techniques. Rather does he proceed to clarify the party's basic values and ends, thereby enabling us to interpret Communism as a pseudo-response to the challenges of a disintegrating society. Thus he reveals the dual nature of Stalinist Communism as both a "League of Conspirators" and a mass organization that must depend "for its success . . . upon the support or at least the good will of millions." It is at the same time "the spokesman and carrier of a foreign nationalism" and and insincere claimant of "a mission that wants performing"—namely, the elimination of "the instabilities, the injustices, and the weaknesses of the existing order." Though all its values and aspirations are only so many variables "in an equation whose one constant is the interest

of the USSR as Stalin defines it," it "does midwife (though it subsequently exploits) working-class demands" and puts to work "for ends that are not really theirs" the "hopes and anticipations concerning the future dignity of man" of the advance guard of the proletariat. As Communism has turned into an *ecclesia* that perverts the most legitimate interests and the most universal ideals into servants of a self-perpetuating and self-righteous machine, it is even less likely to be defeated by force of arms or repression than other more "pagan" movements. Instead we need a constructive program, an organizational effort, and last not least, "an ideal . . . that can make a stronger appeal to man's spontaneity and sense of justice than that made by Communism itself."

In concluding, a few minor omissions might be noted. Because of his opposition to the shallow economism of both Marxists and anti-Marxists, the author somewhat underestimates the strength of the economic factors. A treatment of the socio-economic composition of the party and its voters would have been valuable. His chapter on the psychology of party membership might have gained, had he used some of the hypotheses of depth-psychology. The American reader would have profited also from the inclusion of biographical sketches of typical party personalities. The most serious defect of the book is seen in the author's use of an organismic terminology which prejudices his discussion of the integration of Communism into a functioning society. In thanking Rossi and the team of translators for this fine piece of work, may the reviewer express the hope that they will present us soon with another volume bringing the story up to date.

OSSIP K. FLECHTHEIM

Colby College

*The Idea of Progress: A Collection of Readings* (Revised Edition). Selected by FREDERICK J. TEGGART, with an introduction by GEORGE H. HILDEBRAND. Berkeley and Los Angeles: University of California Press, 1949. xi, 453 pp. \$6.00 (Text edition, \$4.50).

There is continuing reason for interest in the classical views on society: some of these views still have credence today, in society at large as well as in the basic theory of the social sciences. The Teggart-Hildebrand collection of readings on *The Idea of Progress* thus is a timely publication, for it provides the most extensive survey of ideas on change in society

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Western speculation on human society, starting with Hesiod's *Works and Days*, found ample expression in the writings of men for nearly 2500 years before such founding fathers as Smith, Comte, Marx, and Tylor came forth with their versions of social science. The Teggart-Hildebrand volume surveys the range of this speculation through a careful selection from primary documents of ancient Greek, Roman, and early Modern European statements on human nature in society, on the origins and course of civilization, and on the order and change of order in society. It should be understood that this work gives not solely an account of the idea of progress, but is more generally a review of a variety of major concepts on society and social change.

The Teggart-Hildebrand collection improves upon the previous set of readings selected by Professor Teggart (*The Idea of Progress*, 1929) by its inclusion of additional sources—e.g. Thucydides, Plato, Seneca, Cicero, Augustine, Lafitau, Ferguson, Robertson, Volney, Marx, and Darwin—and in having Professor Hildebrand's introductory comment on the idea of progress and related ideas.

Hildebrand's analysis, useful in itself as a

guide to past social thought, sets up the thought-provoking comparison of man burdened not so long ago by a questionable grand organizing conception, the idea of progress, and man today in perhaps an even more distressing state (since progress is bitter) marked by the quest for a new organizing idea, which seems in the works of Toynbee, Sorokin, and other "misfortune-tellers" to be reverting to the depressing belief in cycles. Most of those today who see the faults of the progress theme are living, especially for professional purposes, in states of abeyance, default, or confusion of organizing ideas. Actually the clarity of great social ideologies of the past, as documented in the Teggart-Hildebrand selections, raises by contrast the urgent question of whether the social ideologies of our time have yet become fully explicit. Whether the task of social scientists includes contributions to ideologies and whether ideologies are directive or derivative social facts, it has become increasingly plain that understanding of critical social events and circumstances demands more knowledge of how social thought is formulated. The Teggart-Hildebrand selections contribute to that end.

EDWARD ROSE

University of Colorado

## BOOK NOTES

*Emergent Human Nature: A Symbolic Field Interpretation.* By WALTER COUTU. New York: Alfred A. Knopf, Inc., 1949. xv, 432, xii pp. \$5.00 (Text edition, \$3.75).

In the author's words this book "purports to be an integrated conceptual formulation for social psychology in a form which synthesizes the situational or field approach with the symbolic interactionist approach." (p. x) Thus its two main sources of inspiration are Lewin and Mead, with Lundberg getting an assist by virtue of his behaviorism. The result may be indicated, at least partially, by some of the chapter headings: "Behavior Is Tendency," "Personality Is A System of Tendency," "The System Operates Selectively," "Human Needs are Meanings," and "Meaning Comes From Our Groups."

Undoubtedly there are some important things here. The emphasis on meaning is welcome, and the distinction between "field" and "situation" may be of use. Similarly one can point to the discussions of motivation, personality, and "selective response" as being of value, not to men-

tion such lesser topics as the distinction between prediction and prophecy.

One question that arises is whether the collection of various ideas into a single book thereby makes a "system," even a tentative one. Lack of concrete data is another handicap; all too frequently the author relies upon a quotation, or provides an illustration. Even more irritating on occasion are the author's neologisms and a style which borders on the coy. It is difficult to conceive of a term like "tinsits" (tendency in situations) being accepted into the social science vocabulary—and one wonders whether "folkways" take on a new luster by being called "common tinsits."

As a final word, it is interesting to note that the publisher and Professor Cottrell, who wrote the introduction, disagree as to the "newness" of the book. Cottrell says No, and this reviewer is inclined to agree.

*An Analysis of the Sociological Theories of Bronislaw Malinowski.* By MAX GLUCKMAN.

New York: Oxford University Press (The Rhodes-Livingstone Papers, No. 16), 1949. 28 pp. Seventy-five cents.

Malinowski himself would have relished this forceful attack on some central points in the systematic theory of social processes and structures which constituted a major interest of his latter years. His seminars in America too rarely were enlivened by such informed and tough-minded criticism as this; had he had more of it, his posthumous works undoubtedly would have profited. Dr. Gluckman's two essays reprinted here are long critical reviews of *The Dynamics of Culture Change* and *A Scientific Theory of Culture* which appeared originally in *Africa* (April 1947) and *African Studies* (March 1947) respectively. They merit careful consideration by all who are concerned with the development of sociological theory no less than by students of Malinowski's work itself. The latter may not agree with Dr. Gluckman's interpretations and criticisms in their entirety; and exposure of weaknesses in the functional and institutional theories may not be felt by all to warrant their complete repudiation. Few will deny, however, that many of Dr. Gluckman's points are well taken—e.g., Malinowski's disregard of intra-group conflict, and inconsistencies in his "three-column" approach to culture contact and change—and some will appreciate his statement of the positive contribution in the concept of institution. Nevertheless this reviewer feels that the repeated strictures over Malinowski's "tendency to slip almost unconsciously [*sic*] from analytical into practical problems" rest on a misunderstanding of how he, Malinowski, believed that social science should be done.

*Human Rights: Comments and Interpretations.*

A Symposium Edited by UNESCO. New York: Columbia University Press, 1949. 288 pp. \$3.75.

In 1947 UNESCO, through a questionnaire addressed to intellectual leaders in many member-states, undertook an inquiry into theoretical problems of human rights. This project, which ran concurrently with the work of the Human Rights Commission of the UN in its drafting of a Universal Declaration, is here summarized in thirty-odd essays on almost as many aspects of the problem. Freed from the restraints of political expediency and official caution which beset members of the Commission itself and delegates to the General Assembly, the international galaxy of philosophers, scientists, and

writers could speak as scholars. The selection and arrangement of their replies which are concerned with general and specific problems admirably fulfills the general purpose of the volume as a stimulus to thought. For once the much abused word "symposium" is not a misnomer; and the specific phases of the problem to which several papers are addressed must be of wide interest to sociologists. Comparison between these discussions and the recently adopted Declaration itself, included without comment in the third and final appendix, is left to the reader. Two other appendices contain the original memorandum-questionnaire and a summary statement of results by the UNESCO committee respectively.

No brief notice can do justice to the wealth of suggestions provided in this symposium. Mention should be made, however, of the historicity which permeates most of the contributions; of the general recognition that problems of social and economic rights add a new and complicating dimension to the earlier, virtually exclusive, interest in political rights; and of the gratifying consensus that analysis of rights alone must remain a sterile approach to social relations unless matched by equally acute consideration of corresponding duties.

*Geo-Economic Regionalism and World Federation.* By MAURICE PARMELEE. New York: Exposition Press, 1949. xi, 137 pp. \$2.50.

In this work the author develops a plan for global peace based upon geo-economic regionalism. Using Griffith Taylor's geo-economic classification of the world as a starting point, Dr. Parmelee delineates fourteen regions which would constitute the primary units of a world federation. Under the plan nations would not be abolished but would continue to be responsible for functions of national scope. They would, however, lose most of their sovereignty since regions would cut across national boundaries and would be the constituent units of the federation. All activities of regional or world scope would be the concern of regional and world authorities respectively. Thus the proposed plan does not call for another federation of sovereign states such as the League of Nations or the United Nations. Essential to the regional federation are the renunciation of absolute national sovereignty and universal disarmament. Unfortunately, we never learn from the author just how these might come about.

*Outline of Cultural Materials* (3rd Revised Edition). By GEORGE P. MURDOCK, CLELLAN S. FORD, and others. New Haven: Human Relations Area Files, Inc. (Behavior Science Outlines, Vol. 1), 1950. xxiii, 162 pp. \$2.00.

As a universal classificatory device for the collection and collation of cultural materials, earlier editions of this volume were widely recognized as an important contribution to ethnological research. Thirteen years of analytical experience with the Cross-Cultural Survey and related projects lie behind this expanded yet simplified revision for the successor project known as the Human Relations Area Files. In organization, scope, and general applicability the present work far surpasses its predecessors and deserves a place on the reference shelf of all sociologists. Noteworthy changes reflecting the added comprehensiveness include: an increase in the number of Sections from 46 to 79, and sharper definition of many Section referents (vd. "Property," "Individuation and Mobility," "Interpersonal Relations," "Family," etc.); a total of 619 Categories (or sub-sections) as compared with less than half that number previously; and elimination of the former excessively fragmentary Sub-categories. Cross-referencing among Categories, probably the most suggestive single aspect of this entire cultural morphology, has been markedly expanded.

While the basically anthropological orientation remains apparent, an explanatory preface (a welcome innovation) emphatically denies "that the files are exclusively, or even predominantly, designed for the use of anthropologists." Official policy of HRAF, on the contrary, aims to serve alike the needs of sociology, cultural anthropology, psychology, human biology, and geography. Contemporary complex cultures should prove far more amenable than heretofore to descriptive classification with this mature research aid. Its crucial importance to the HRAF itself is obvious.

*Local Community Fact Book of Chicago*. Edited by LOUIS WIRTH and ELEANOR H. BERNERT. Chicago: The University of Chicago Press, 1949. \$2.50.

This new and expanded version of a work first published in 1938 is built upon experience gained during the last thirty years by sociologists and others interested in local community research in Chicago. The city is broken down for analytical purposes into seventy-five local communities which have been taken as the bases

for accumulation of historical, statistical, and case data. The value for comparative purposes of this systematic compilation is widely recognized by administrators as well as by sociologists and other researchers.

The new *Fact Book* presents the statistical data from the 1940 Census in particular. Nine well constructed tables are given for each community, covering Age, Nativity, Marital Status, Citizenship and Education, by Sex, 1930 and 1940; Type of Dwelling Structure, 1940; Wages and Salaries of Experienced Workers, Age 14 and Over, by Race and Sex, 1939; Major Occupation Groups, by Race and Sex, 1940; Employment Status of the Population 14 Years and Over in the Labor Force, by Sex, 1940; Selected Characteristics of Households, 1940; Selected Housing Characteristics, 1940; Dwelling Units by Year Built, 1940; and Births and Deaths, 1928-1932 and 1938-1942. Population pyramids for each community give age, sex, nativity, and race data for 1930 and 1940. In addition, there are maps for each community and tabulations of its population, area, and density. Plans have already been drafted for a new edition which will use the 1950 Census as soon as its results are available.

Although there is no text other than the tables, maps, and charts, an amazing amount of information is condensed into the two pages devoted to each local community. Carefully edited and attractive in format, this volume should prove useful in courses on the community, statistics, and population. It could also serve as a model for comparable compilations in other cities.

*The People of Tennessee: A Study of Population Trends*. By JOHN BALLENGER KNOX. Knoxville: The University of Tennessee Press, 1949, xvi, 191 pp.

This initial publication of a group of research projects of the newly formed Bureau for Sociological Research at the University of Tennessee is not a scientific treatise for the specialist. Prepared for the interested layman, it nevertheless is done with the accuracy which the specialist would approve. In taking stock of Tennessee's most important product—its three million people—the author covers the following demographic material: the origins, growth, distribution, and composition (age, sex, race, occupation, education, and religion) of the population; internal migration; and trends in birth, mortality, morbidity, marriage, and divorce

rates. This work should prove especially helpful for those interested in Tennessee's population and in the development and implementation of policies concerning it.

*Passing of the Mill Village: Revolution in a Southern Institution.* By HARRIET L. HERRING. Chapel Hill: The University of North Carolina Press, 1949. vii, 137 pp. \$3.00.

The mill village, long an important feature in the physical and social landscape of the South, is beginning to disappear. About a quarter of a century ago the conditions which produced it had changed to such a degree that the mill village no longer fulfilled its function. The first sale of a village by a mill owner occurred in the middle thirties, and since then the movement has gained momentum. By mid-1949 approximately 16 per cent of the 800 mills in the main Southern textile states had been sold. If the movement continues, as Miss Herring believes it will, its results will have social and economic significance for the entire piedmont region. The present volume, however, does not deal primarily with these important problems. Rather it is a description of the movement itself: the extent of growth of sales; preparation for and procedures followed in sales; effects of sales upon workers and labor-management relations; the reaction of the union; and some changes in the mill village resulting from the sales. The book will probably be of more value to people in management who are planning future sales, and to persons interested in the South and its progress, than to sociologists for classroom use.

*Labor Dictionary: A Concise Compendium of Labor Information.* By PAUL HERBERT CASSELMAN. New York: Philosophical Library, 1949. xi, 554 pp. \$7.50.

A book which includes 2,461 entries, ranging from names of organizations and individuals to technical terms and even such general concepts as socialism and capitalism, can hardly hope to cover everything each reader may seek. Random sampling, however, reveals few serious omissions, although some items may be less than scientific—for example, the straight-faced definition of "acquisitive instinct" as an inborn impulse. Identification of many of the strings of initials which infest the field of labor is especially welcome. A selected bibliography of about 250 titles is conveniently classified, but here omissions are more apparent.

*The American Family, a Factual Background.* Report of INTER-AGENCY COMMITTEE ON BACKGROUND MATERIALS, National Conference on Family Life, May 1948. Washington: Government Printing Office. 457 pp. \$1.25.

For the purpose of the deliberations of the National Conference on Family Life, statistical and other studies pertinent to the American family, made available by thirteen federal agencies, were assembled and condensed by an Inter-Agency Committee in this fact-studded, excellent monograph. The wealth of material has been grouped into seven chapters dealing with basic family and population statistics, the family in the economy, education, housing, health, legal status of the family, and income maintenance and social services to the family. Aside from the last three sections, which are more general and synoptic in nature, the emphasis in this publication has been upon statistical trends and developments since 1940. Many of the special reports, which have issued from the Census Bureau and other agencies since the 16th Census, have therefore been summarized in convenient and useful fashion. Interpretation is carefully constrained to the level of the data: presumably large-scale generalizations about their implications to the American family followed at the conference. Tables and charts augment the text, and selected bibliographies are included.

*Discontent at the Polls: A Study of Farmer and Labor Parties, 1827-1948.* By MURRAY S. STEADMAN, JR., and SUSAN W. STEADMAN. New York: Columbia University Press, 1950. x, 190 pp. \$2.75.

This little volume is an excellent example of the deficiencies of simple empiricism. It evidently reflects a faith that if the social scientist can only amass enough data, relevant and meaningful conclusions will somehow pop out by themselves with no theoretical cogitation by the social scientist.

To take a single but unfortunately quite typical example: One of the main themes of the book is the assertion that if the minor parties of "discontent" in the United States have not been notably successful as vote-getters, they have at least been successful as "popularizers of ideas and issues." The test of this hypothesis is simply to show that in year X one of the minor parties advocated a reform which was subsequently adopted as public policy in the year Y. The authors seem never to be fully

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aware that they have demonstrated no functional relationship between these two events, and as a result of their over-simplified methodology all of the really interesting questions remain unasked. Precisely how, for example, did Populist ideas and activity influence subsequent public policy? Among the influential elites who supported Wilson's New Freedom and Roosevelt's New Deal, were there any who had been influenced by the Populists? And among the followers of these elite groups, how, if at all, did the Populists develop a predisposition for government intervention? Was the relation between Populism and the New Freedom really one of cause and effect—or was it rather that both were themselves effects of a tension between certain aspects of the American agrarian ideology and the environment of industrial capitalism? In this volume one can find no inkling of an answer to these questions—or indeed, the hint that such questions as these might be relevant.

*The Negro's Morale: Group Identification and Protest.* By ARNOLD M. ROSE. Minneapolis: University of Minnesota Press, 1949. ix, 153 pp. \$2.50.

By morale the author means "loyalty to or solidarity with the group, which gives the individual a sense of rightness and strength even though the group is weak and despised. Morale thus becomes synonymous with group identification." The book is concerned with group identification among Negroes: its historical growth, blocks to its development (mainly divisive forces among Negroes), its promotion, its future, and its effects on intergroup relations. The author believes that the trend over the last forty years has been from low to high morale. This is all familiar ground. What the author has done is merely to emphasize the social and psychological factors making for or against the feeling of belonging to a minority group.

*Southern Legacy.* By HODDING CARTER. Baton Rouge: Louisiana State University Press, 1950. v, 186 pp. \$3.00.

This is another of the Pulitzer Prize winning author's efforts to explain the South both to outsiders and to Southerners themselves. Primarily a series of autobiographical anecdotes, the book deals with many current subjects of violent dispute such as the poor white and race questions, the anti-ethnic problem, and the political issue. Discrimination against the Negro,

according to Mr. Carter, is demoralizing for whites as well as for Negroes and is one of the South's most important problems. Abandoning segregation, as advocated by many outsiders, is not the solution, however. The author believes that the white Southerner's mistake is not in separating the races, but in emphasizing the Negro's inferior status and making segregation synonymous with subordination, thus denying him self-respect, "the most precious intangible which man can possess." If the region would only follow the principle of separate but equal treatment, as is supposedly now done in Savannah, the Negro would enjoy this self-respect and have almost all that he now desires as a citizen of the South. Despite Mr. Carter's satisfaction with the logic of his argument, it is difficult to understand how the Negro can possess the same degree of self-respect as a white man and consider himself an equal when segregation is forced upon him.

*Stillbirths: Their Epidemiology and Social Significance.* By IAN SUTHERLAND. New York: Oxford University Press, 1949 [1950]. xii, 95 pp. \$1.50.

Each year England and Wales together experience about 21,000 stillbirths, 17,000 neonatal, and 15,000 "postnatal" deaths. Practical questions of societal replacement, no less than humanitarian and welfare considerations, are stimulating heightened scientific interest in the human wastage of stillbirths and infant mortality. The present meticulous survey of medical, biological, and social factors associated with stillbirth rates in England and Wales, roughly from 1927 to 1945, provides as comprehensive a picture of the phenomena as is obtainable from current statistical sources. The author, a biostatistician with the Institute of Social Medicine in Oxford, notes that known medical and biological factors are insufficient in themselves to account for certain regional variations and the marked war-time decline in the stillbirth rate. He uses the multiple regression equation method to test the relevance of social factors and shows significant correlations between declining stillbirth rates and various socio-economic indices, of which improved maternal nutrition and institutional care of parturient women are not the least important when age and parity are held constant.

Similarity in definitions of stillbirth in Scotland, Denmark, Holland, and New Zealand permit him to draw some international compari-

sons; and he makes extensive use of both British and American literature on the subject. Conscious of the limitations inherent in a statistical survey of this kind, he nevertheless regards it as a necessary step toward more revealing research projects. This small volume is a real contribution to social science.

*Mayhew's London.* Edited by PETER QUENNELL.  
London: The Pilot Press, 1949. 569 pp. 21s.

This abridgement of *London Labour and the London Poor* (1st ed., 2 vols., London 1851) should help to rescue from neglect an interesting precursor of modern sociological investigation. The name of Henry Mayhew (1812-1887)—dramatist, travel writer, sometime co-editor of *Punch*, and indefatigable reporter of life in London's lowest strata—is rarely met in histories of social research. Yet his vivid descriptions of London's amazing variety of "street-folk" a century ago—costermongers, dustmen, finders, sweepers, mridlarks, rat-killers, and pavement artists—amply warrants his designation in the *D. N. B.* as the founder of "philanthropic journalism." His non-sectarian zeal for reform was tempered by a consuming passion for fact; and his profoundly humanistic eye and ear in note-taking were ably served by considerable literary skill. "I am simply a literary man desirous of letting the rich know something about the poor," he once told some ticket-of-leave men whom he had called together to establish an improvement society for their kind. "Some persons study the stars, others study the animal kingdom, others again direct their researches into the properties of stones. . . . I am the first who has endeavoured to study a class of my fellow creatures whom Providence has not placed in so fortunate a position as myself, my desire being to bring the extremes of society together." Whatever the rich may have thought of his peculiar friends, they sent his book through five editions in fifteen years. For then as now, as Mr. Quennell rightly remarks in a deft introduction, "one need not to be a student of history or a sociologist to find it immensely entertaining."

*Forgotten Religions.* Edited by VERGILIUS FERM.  
New York: The Philosophical Library, 1950.  
xv, 392 pp. \$7.50.

The idea of this book is a good one—to set side by side various expressions of faith of men who belong to civilizations remote from our

own. Thirteen religions of antiquity are discussed (for example, those of the Egyptians, Hittites, and Norsemen), and seven of contemporary pre-literate groups (among them the Eskimo, Hopi, and Navaho). The essays are all scholarly, but the interests of the authors are so diverse that no unity of treatment emerges. Since the editor felt that he could lay down no outline to be followed by each contributor, one chapter emphasizes theology, another religious organization, another the influence exerted by the faith. The result is rather like that of having twenty articles from an encyclopaedia juxtaposed. For sociologists the most illuminating chapters, aside from familiar ethnographic accounts, are those on Canaanitish religion, on the mystery religions of Greece, and on the faith of the empire of Alexander the Great. The bibliographies are allurements to further study.

*The Idea of Usury: From Tribal Brotherhood to Universal Otherhood.* By BENJAMIN N. NELSON. Princeton: Princeton University Press, 1949. xxi, 258 pp. \$3.00.

Dr. Nelson has written a detailed history of the exegesis of the Biblical commandment on usury (Deut. 23: 19-20) in a theoretical framework derived from Max Weber and Sir Henry Maine of the evolution of modern society. The thesis of the book is indicated by its subtitle: historical progress in the brotherhood of man has been accompanied by a weakening of the moral bonds of brotherhood.

Undoubtedly usury's long drawn out illness and ultimate demise can be used to argue such a case. It has already been dealt with more convincingly, however, in terms of Toenies' dichotomy of *Gemeinschaft* and *Gesellschaft*, Durkheim's concept of *anomie*, and Cooley's distinction between primary and secondary groups. From Nelson's own evidence a better case might be made for the fact that the *dicta* of moral theology are always conditioned by social and economic pressures of the moment. One is also constrained to note again that theological casuistry is both endless and capable of proving anything.

One cannot fail to be impressed by the length and breadth of the bibliographic citations. The feeling remains, however, that often there are imputations to earlier writers—e.g. Luther and Shakespeare—of attitudes which a full study of their works would not bear out. It is heartening

to see an historian recognize the utility of sociological theory, but in this case it has been somewhat forced upon the subject under consideration.

*The Christian Reformed Church: A Study in Orthodoxy.* By JOHN KROMMINGA. Grand Rapids, Mich.: Baker Book House, 1949. 241 pp. \$3.50.

This history, originally written as a dissertation in church history, traces the development of a growing Dutch immigrant sect which has succeeded in maintaining, almost to the letter, seventeenth century Calvinist orthodoxy in a modern American environment. Although much of the material it contains is of interest only to

theologians and church historians, this book provides important source material for the study of institutional orthodoxy. Its thesis is that the denomination's hyper-orthodoxy, born of a tradition of religious persecution and nourished on purposeful linguistic and ecclesiastical isolation, is being maintained primarily by a comprehensive system of theological indoctrination of the laity and a program of militant missionary crusading against the "devil" of "Modernism." The principal weakness of the book lies in its inadequate delineation of the background and of both the social and ecclesiastical environment; its strength consists in its well-rounded presentation of the denomination as an institution.

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